

9.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, and §27.54

LIMITS

FCC §22.355

The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

FCC §24.235 & §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

Use CMW 500 with Frequency Error measurement capability.

- Temp. = -30°C to $+50^{\circ}\text{C}$
- Voltage = (85% - 115%)

Low voltage, 3.2725VDC, Normal, 3.85VDC and High voltage, 4.4275VDC.

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

RESULTS

See the following pages.

9.4.1. GSM

LIMITS

FCC: §22.355

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 10/2/2023 |
|--------------------------|-------|-------------------|-----------|

GPRS 850

| Band | | 5 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|-----------------|--|------------------------------|-------|--|
| Condition | | 824 | 849 | 2.5 | Within Authorized Frequency Block (Hz) | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | | | |
| Normal (20°C) | Normal | 824.0220 | 848.9780 | | | | | |
| Extreme (50°C) | | 824.0220 | 848.9780 | -5.4 | -0.006 | Yes | | |
| Extreme (40°C) | | 824.0220 | 848.9780 | -9.6 | -0.011 | Yes | | |
| Extreme (30°C) | | 824.0220 | 848.9780 | -9.8 | -0.012 | Yes | | |
| Extreme (10°C) | | 824.0220 | 848.9780 | 9.3 | 0.011 | Yes | | |
| Extreme (0°C) | | 824.0220 | 848.9780 | 5.4 | 0.006 | Yes | | |
| Extreme (-10°C) | | 824.0220 | 848.9780 | 2.9 | 0.003 | Yes | | |
| Extreme (-20°C) | | 824.0220 | 848.9780 | 6.6 | 0.008 | Yes | | |
| Extreme (-30°C) | | 824.0220 | 848.9780 | 5.9 | 0.007 | Yes | | |
| | | | | | | | | |
| 20°C | 15% | 824.0220 | 848.9780 | 11.7 | 0.014 | Yes | | |
| | -15% | 824.0220 | 848.9780 | 14.3 | 0.017 | Yes | | |
| | | | | | | | | |

LIMITS

FCC: §24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 10/2/2023 |
|--------------------------|-------|-------------------|-----------|

GPRS 1900

| Band | 2 | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|------------------------------|---------------------------|--|
| Condition | | 1850 | 1910 | | 2.5 | Within Authorized Frequency Block (Hz) |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | Frequency Stability (ppm) | |
| Normal (20°C) | Normal | 1850.0320 | 1909.9760 | | | |
| Extreme (50°C) | | 1850.0320 | 1909.9760 | -5.9 | -0.003 | Yes |
| Extreme (40°C) | | 1850.0320 | 1909.9760 | -13.4 | -0.007 | Yes |
| Extreme (30°C) | | 1850.0320 | 1909.9760 | -10.3 | -0.005 | Yes |
| Extreme (10°C) | | 1850.0320 | 1909.9760 | 18.6 | 0.010 | Yes |
| Extreme (0°C) | | 1850.0320 | 1909.9760 | 25.0 | 0.013 | Yes |
| Extreme (-10°C) | | 1850.0320 | 1909.9760 | 23.3 | 0.012 | Yes |
| Extreme (-20°C) | | 1850.0320 | 1909.9760 | 20.4 | 0.011 | Yes |
| Extreme (-30°C) | | 1850.0320 | 1909.9760 | 14.0 | 0.007 | Yes |
| | | | | | | |
| 20°C | 15% | 1850.0320 | 1909.9760 | 33.5 | 0.018 | Yes |
| | -15% | 1850.0320 | 1909.9760 | 26.7 | 0.014 | Yes |
| | | | | | | |

9.4.2. WCDMA

LIMITS

FCC: §22.355

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/29/2023 |
|--------------------------|-------|-------------------|-----------|

WCDMA REL 99 BAND 5

| Band | | 5 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|-----------------|--|------------------------------|-------|--|
| Condition | | 824 | 849 | 2.5 | Within Authorized Frequency Block (Hz) | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | | | |
| Normal (20°C) | Normal | 824.1410 | 848.8310 | | | | | |
| Extreme (50°C) | | 824.1410 | 848.8310 | -2.3 | -0.003 | Yes | | |
| Extreme (40°C) | | 824.1410 | 848.8310 | -1.5 | -0.002 | Yes | | |
| Extreme (30°C) | | 824.1410 | 848.8310 | 1.4 | 0.002 | Yes | | |
| Extreme (10°C) | | 824.1410 | 848.8310 | 1.6 | 0.002 | Yes | | |
| Extreme (0°C) | | 824.1410 | 848.8310 | 2.2 | 0.003 | Yes | | |
| Extreme (-10°C) | | 824.1410 | 848.8310 | 1.7 | 0.002 | Yes | | |
| Extreme (-20°C) | | 824.1410 | 848.8310 | -1.9 | -0.002 | Yes | | |
| Extreme (-30°C) | | 824.1410 | 848.8310 | 2.1 | 0.002 | Yes | | |
| | | | | | | | | |
| 20°C | 15% | 824.1410 | 848.8310 | 1.9 | 0.002 | Yes | | |
| | -15% | 824.1410 | 848.8310 | -2.4 | -0.003 | Yes | | |
| | | | | | | | | |

LIMITS

FCC: §24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|-------------------|-------|------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/29/2023 |
|-------------------|-------|------------|-----------|

WCDMA REL 99 BAND 2

| Band | 2 | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|------------------------------|---------------------------|--|
| Condition | | 1850 | 1910 | | 2.5 | Within Authorized Frequency Block (Hz) |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | Frequency Stability (ppm) | |
| Normal (20°C) | Normal | 1850.1320 | 1909.8410 | | | |
| Extreme (50°C) | | 1850.1320 | 1909.8410 | -5.0 | -0.003 | Yes |
| Extreme (40°C) | | 1850.1320 | 1909.8410 | -5.7 | -0.003 | Yes |
| Extreme (30°C) | | 1850.1320 | 1909.8410 | -4.6 | -0.002 | Yes |
| Extreme (10°C) | | 1850.1320 | 1909.8410 | -4.3 | -0.002 | Yes |
| Extreme (0°C) | | 1850.1320 | 1909.8410 | 4.4 | 0.002 | Yes |
| Extreme (-10°C) | | 1850.1320 | 1909.8410 | 4.2 | 0.002 | Yes |
| Extreme (-20°C) | | 1850.1320 | 1909.8410 | 4.9 | 0.003 | Yes |
| Extreme (-30°C) | | 1850.1320 | 1909.8410 | -4.3 | -0.002 | Yes |
| | | | | | | |
| 20°C | 15% | 1850.1320 | 1909.8410 | 2.9 | 0.002 | Yes |
| | -15% | 1850.1320 | 1909.8410 | -5.4 | -0.003 | Yes |
| | | | | | | |

LIMITS

FCC: §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block

| | | | |
|-------------------|-------|------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/29/2023 |
|-------------------|-------|------------|-----------|

WCDMA REL 99 BAND 4

| Band | 4 | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|------------------------------|---------------------------|--|
| Condition | | 1710 | 1755 | | Frequency Stability (ppm) | Within Authorized Frequency Block (Hz) |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | |
| Normal (20°C) | Normal | 1710.1570 | 1754.8850 | | | |
| Extreme (50°C) | | 1710.1570 | 1754.8850 | -5.4 | -0.003 | Yes |
| Extreme (40°C) | | 1710.1570 | 1754.8850 | 5.4 | 0.003 | Yes |
| Extreme (30°C) | | 1710.1570 | 1754.8850 | -5.1 | -0.003 | Yes |
| Extreme (10°C) | | 1710.1570 | 1754.8850 | 4.6 | 0.003 | Yes |
| Extreme (0°C) | | 1710.1570 | 1754.8850 | 5.1 | 0.003 | Yes |
| Extreme (-10°C) | | 1710.1570 | 1754.8850 | 5.5 | 0.003 | Yes |
| Extreme (-20°C) | | 1710.1570 | 1754.8850 | 4.6 | 0.003 | Yes |
| Extreme (-30°C) | | 1710.1570 | 1754.8850 | 6.2 | 0.004 | Yes |
| | | | | | | |
| 20°C | 15% | 1710.1570 | 1754.8850 | 3.4 | 0.002 | Yes |
| | -15% | 1710.1570 | 1754.8850 | -3.3 | -0.002 | Yes |
| | | | | | | |

9.4.3. LTE BAND 2

LIMITS

FCC: §24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK, (20MHz BANDWIDTH)

| Band | | 2 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|---------------------------|--|------------------------------|-------|--|
| Condition | | 1850 | 1910 | 2.5 | | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | Frequency Stability (ppm) | Within Authorized Frequency Block (Hz) | | | |
| Normal (20°C) | Normal | 1851.0850 | 1908.9442 | | | | | |
| Extreme (50°C) | | 1851.0850 | 1908.9442 | 5.3 | 0.003 | Yes | | |
| Extreme (40°C) | | 1851.0850 | 1908.9442 | -3.9 | -0.002 | Yes | | |
| Extreme (30°C) | | 1851.0850 | 1908.9442 | 4.5 | 0.002 | Yes | | |
| Extreme (10°C) | | 1851.0850 | 1908.9442 | 4.9 | 0.003 | Yes | | |
| Extreme (0°C) | | 1851.0850 | 1908.9442 | 4.4 | 0.002 | Yes | | |
| Extreme (-10°C) | | 1851.0850 | 1908.9442 | 4.6 | 0.002 | Yes | | |
| Extreme (-20°C) | | 1851.0850 | 1908.9442 | 4.0 | 0.002 | Yes | | |
| Extreme (-30°C) | | 1851.0850 | 1908.9442 | 5.1 | 0.003 | Yes | | |
| | | | | | | | | |
| 20°C | 15% | 1851.0850 | 1908.9442 | -4.1 | -0.002 | Yes | | |
| | -15% | 1851.0850 | 1908.9442 | -4.4 | -0.002 | Yes | | |
| | | | | | | | | |

9.4.4. LTE BAND 12

LIMITS

FCC: §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK, (10MHz BANDWIDTH)

| Band | | 12 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|----------|----------|------------------------------|-------------------------------|------------------------------|---------------------------|--|
| Condition | | 699 | 716 | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | Frequency Stability (ppm) | Within Authorized Frequency Block (Hz) |
| Temperature | Voltage | | | | | | | |
| Normal (20°C) | Normal | 699.5251 | 715.4846 | | | | | |
| Extreme (50°C) | | 699.5251 | 715.4846 | 3.7 | 0.005 | Yes | | |
| Extreme (40°C) | | 699.5251 | 715.4846 | 4.0 | 0.006 | Yes | | |
| Extreme (30°C) | | 699.5251 | 715.4846 | 4.7 | 0.007 | Yes | | |
| Extreme (10°C) | | 699.5251 | 715.4846 | 3.8 | 0.005 | Yes | | |
| Extreme (0°C) | | 699.5251 | 715.4846 | 3.9 | 0.005 | Yes | | |
| Extreme (-10°C) | | 699.5251 | 715.4846 | 3.6 | 0.005 | Yes | | |
| Extreme (-20°C) | | 699.5251 | 715.4846 | -3.4 | -0.005 | Yes | | |
| Extreme (-30°C) | | 699.5251 | 715.4846 | 4.1 | 0.006 | Yes | | |
| | | | | | | | | |
| 20°C | 15% | 699.5251 | 715.4846 | 3.0 | 0.004 | Yes | | |
| | -15% | 699.5251 | 715.4846 | 3.2 | 0.005 | Yes | | |
| | | | | | | | | |

9.4.5. LTE BAND 13

LIMITS

FCC: §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK, (10MHz BANDWIDTH)

| Band | | 13 | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|---------------------------|------------------------------|--|--|
| Condition | | | 777 | 787 | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | Frequency Stability (ppm) | | Within Authorized Frequency Block (Hz) | |
| Normal (20°C) | Normal | 777.3571 | 786.5175 | | | | |
| Extreme (50°C) | | 777.3571 | 786.5175 | 4.8 | 0.006 | Yes | |
| Extreme (40°C) | | 777.3571 | 786.5175 | 4.6 | 0.006 | Yes | |
| Extreme (30°C) | | 777.3571 | 786.5175 | 5.2 | 0.007 | Yes | |
| Extreme (10°C) | | 777.3571 | 786.5175 | 5.0 | 0.006 | Yes | |
| Extreme (0°C) | | 777.3571 | 786.5175 | 5.0 | 0.006 | Yes | |
| Extreme (-10°C) | | 777.3571 | 786.5175 | -5.3 | -0.007 | Yes | |
| Extreme (-20°C) | | 777.3571 | 786.5175 | -5.1 | -0.007 | Yes | |
| Extreme (-30°C) | | 777.3571 | 786.5175 | 7.2 | 0.009 | Yes | |
| | | | | | | | |
| 20°C | 15% | 777.3571 | 786.5175 | 4.7 | 0.006 | Yes | |
| | -15% | 777.3571 | 786.5175 | 5.1 | 0.007 | Yes | |
| | | | | | | | |

9.4.6. LTE BAND 26

LIMITS

FCC: §90.213

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK (5MHz BANDWIDTH)

| Band | | 26 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|-----------------|--|------------------------------|-------|--|
| Condition | | 824 | 849 | 2.5 | Within Authorized Frequency Block (Hz) | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | | | |
| Normal (20°C) | Normal | 824.8240 | 848.1957 | | | | | |
| Extreme (50°C) | | 824.8240 | 848.1957 | 3.8 | 0.005 | Yes | | |
| Extreme (40°C) | | 824.8240 | 848.1957 | -3.2 | -0.004 | Yes | | |
| Extreme (30°C) | | 824.8240 | 848.1957 | 2.9 | 0.004 | Yes | | |
| Extreme (10°C) | | 824.8240 | 848.1957 | 3.4 | 0.004 | Yes | | |
| Extreme (0°C) | | 824.8240 | 848.1957 | -2.8 | -0.003 | Yes | | |
| Extreme (-10°C) | | 824.8240 | 848.1957 | -3.3 | -0.004 | Yes | | |
| Extreme (-20°C) | | 824.8240 | 848.1957 | -2.9 | -0.003 | Yes | | |
| Extreme (-30°C) | | 824.8240 | 848.1957 | 3.3 | 0.004 | Yes | | |
| 20°C | | 15% | 824.8240 | 848.1957 | 3.1 | 0.004 | Yes | |
| | -15% | 824.8240 | 848.1957 | 2.4 | 0.003 | Yes | | |
| | | | | | | | | |

9.4.7. LTE BAND 41

LIMITS

FCC: §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK, (20MHz BANDWIDTH)

| Band | | 41 | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|-----------------|--|------------------------------|-------|--|
| Condition | | 2496 | 2690 | 0 | Within Authorized Frequency Block (Hz) | | | |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | | | |
| Normal (20°C) | Normal | 2497.0869 | 2688.9260 | | | | | |
| Extreme (50°C) | | 2497.0869 | 2688.9260 | -9.6 | -0.004 | Yes | | |
| Extreme (40°C) | | 2497.0869 | 2688.9260 | -7.3 | -0.003 | Yes | | |
| Extreme (30°C) | | 2497.0869 | 2688.9260 | -8.2 | -0.003 | Yes | | |
| Extreme (10°C) | | 2497.0869 | 2688.9260 | -8.5 | -0.003 | Yes | | |
| Extreme (0°C) | | 2497.0869 | 2688.9260 | -8.6 | -0.003 | Yes | | |
| Extreme (-10°C) | | 2497.0869 | 2688.9260 | -7.7 | -0.003 | Yes | | |
| Extreme (-20°C) | | 2497.0869 | 2688.9260 | -8.5 | -0.003 | Yes | | |
| Extreme (-30°C) | | 2497.0869 | 2688.9260 | -9.2 | -0.004 | Yes | | |
| 20°C | | 15% | 2497.0869 | 2688.9260 | -8.9 | -0.003 | Yes | |
| | -15% | 2497.0869 | 2688.9260 | -8.3 | -0.003 | Yes | | |
| | | | | | | | | |

9.4.8. LTE BAND 66

LIMITS

FCC: §27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | | | |
|--------------------------|-------|-------------------|-----------|
| Test Engineer ID: | 32582 | Test Date: | 9/26/2023 |
|--------------------------|-------|-------------------|-----------|

QPSK, (20MHz BANDWIDTH)

| Band | | Frequency Range | | Frequency Error Reading (Hz) | Limit | |
|-----------------|---------|------------------------------|-------------------------------|------------------------------|---------------------------|--|
| Condition | | 1710 | 1780 | | Frequency Stability (ppm) | Within Authorized Frequency Block (Hz) |
| Temperature | Voltage | Freq Reading @ Low End (MHz) | Freq Reading @ High End (MHz) | | | |
| Normal (20°C) | Normal | 1711.0642 | 1778.9475 | | | |
| Extreme (50°C) | | 1711.0642 | 1778.9476 | 4.4 | 0.003 | Yes |
| Extreme (40°C) | | 1711.0642 | 1778.9475 | -3.8 | -0.002 | Yes |
| Extreme (30°C) | | 1711.0642 | 1778.9476 | 4.4 | 0.003 | Yes |
| Extreme (10°C) | | 1711.0642 | 1778.9475 | -4.5 | -0.003 | Yes |
| Extreme (0°C) | | 1711.0642 | 1778.9475 | -4.3 | -0.002 | Yes |
| Extreme (-10°C) | | 1711.0642 | 1778.9476 | 5.2 | 0.003 | Yes |
| Extreme (-20°C) | | 1711.0642 | 1778.9476 | 4.9 | 0.003 | Yes |
| Extreme (-30°C) | | 1711.0642 | 1778.9476 | 5.0 | 0.003 | Yes |
| 20°C | | 15% | 1711.0642 | 1778.9475 | 3.7 | 0.002 |
| | -15% | 1711.0642 | 1778.9476 | 4.2 | 0.002 | Yes |
| | | | | | | |

9.5. PEAK-TO-AVERAGE POWER RATIO

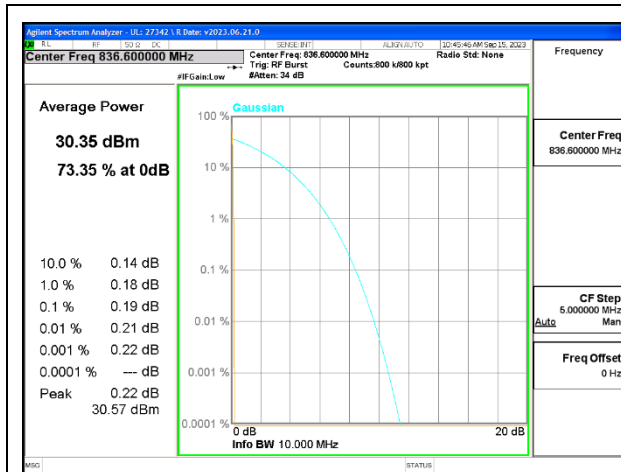
LIMITS

In addition, the peak to average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

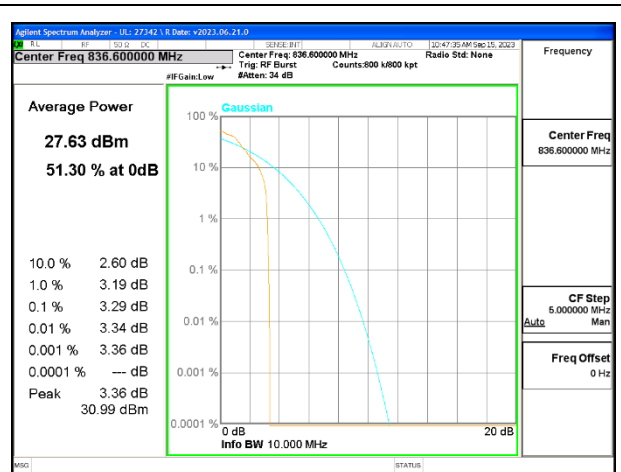
RESULT

The results from all CCDF plots are passed with 13dB peak-to-average power ratio criteria.

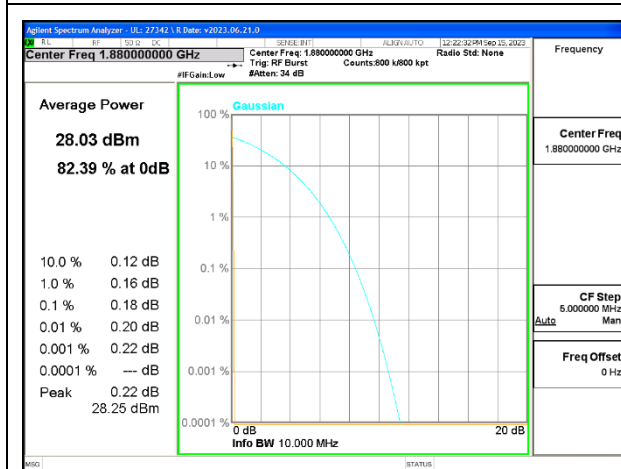
9.5.1. GSM



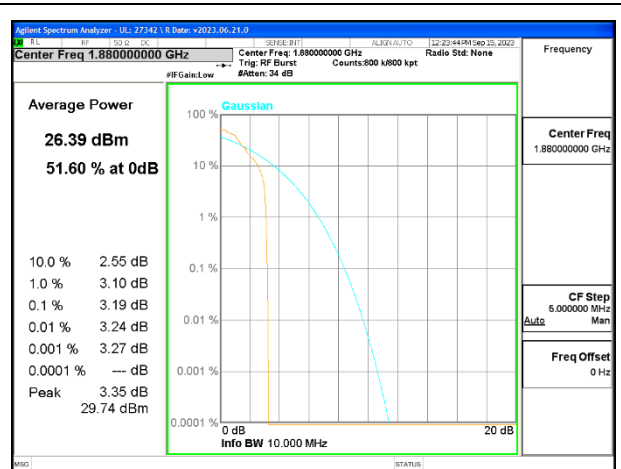
GSM 850 GPRS Middle Channel



GSM 850 EGPRS Middle Channel

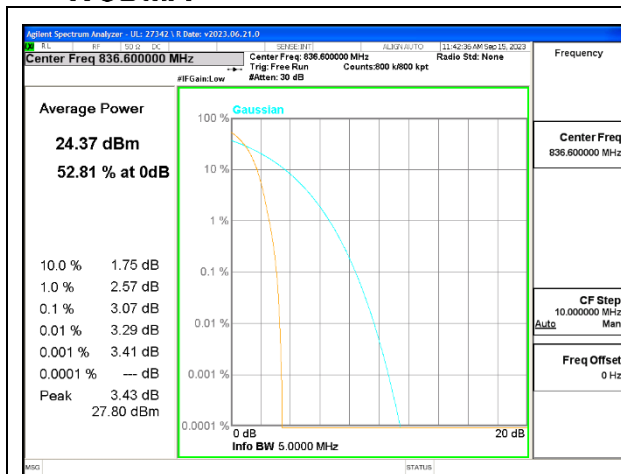


GSM 1900 GPRS Middle Channel

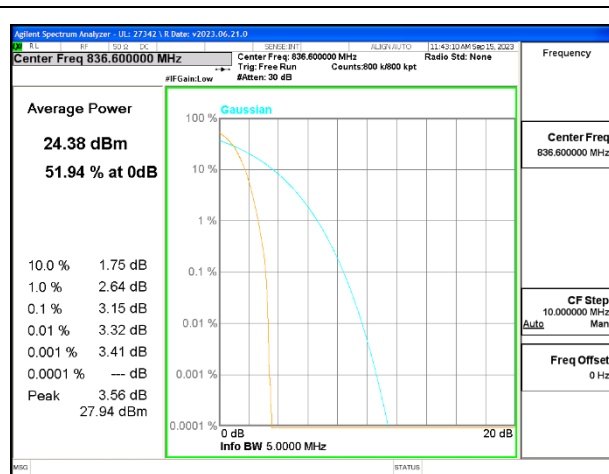


GSM 1900 EGPRS Middle Channel

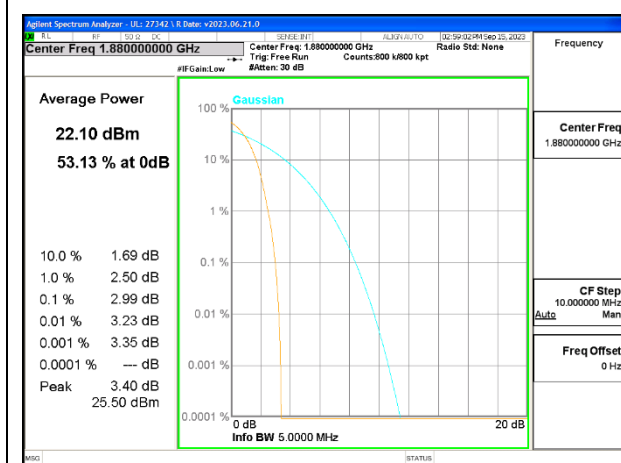
9.5.2. WCDMA



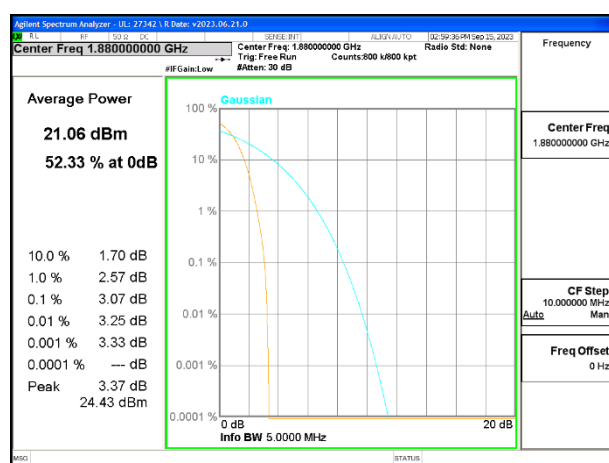
WCDMA Band 5 Rel 99 Middle Channel



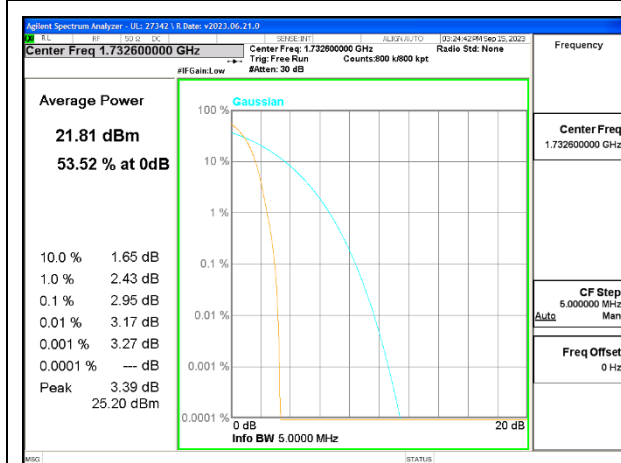
WCDMA Band 5 HSDPA Middle Channel



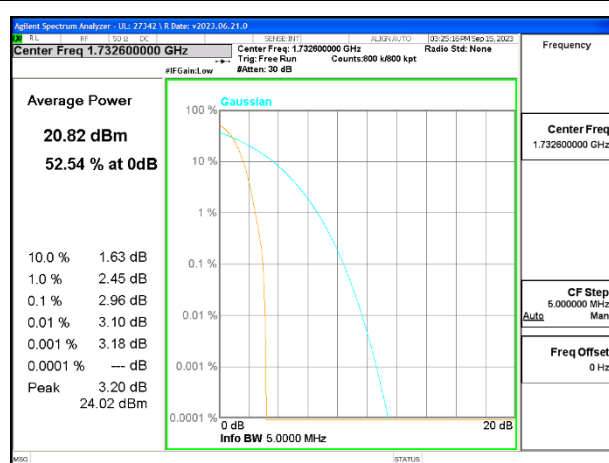
WCDMA Band 2 Rel 99 Middle Channel



WCDMA Band 2 HSDPA Middle Channel

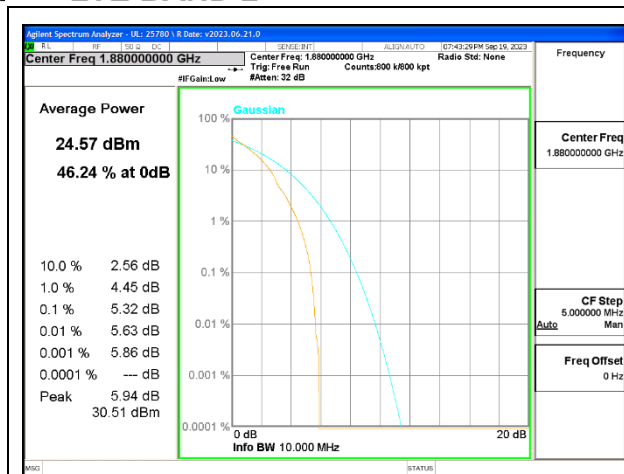


WCDMA Band 4 Rel 99 Middle Channel

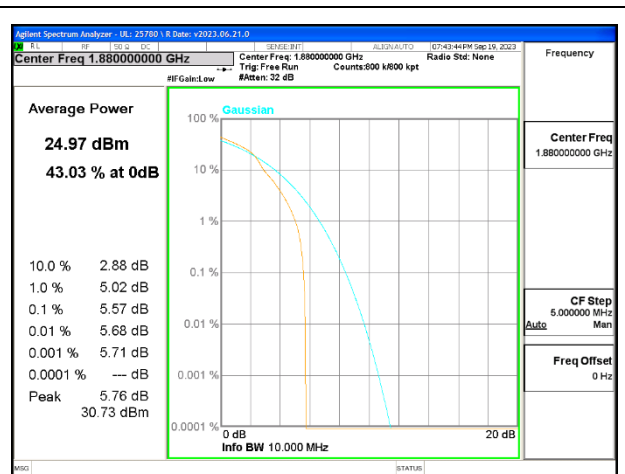


WCDMA Band 4 HSDPA Middle Channel

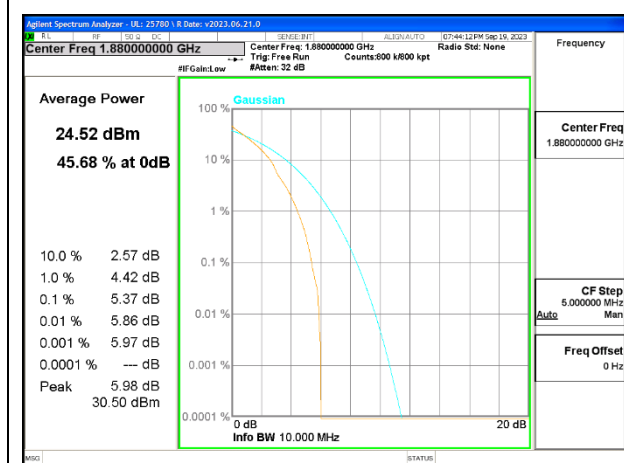
9.5.3. LTE BAND 2



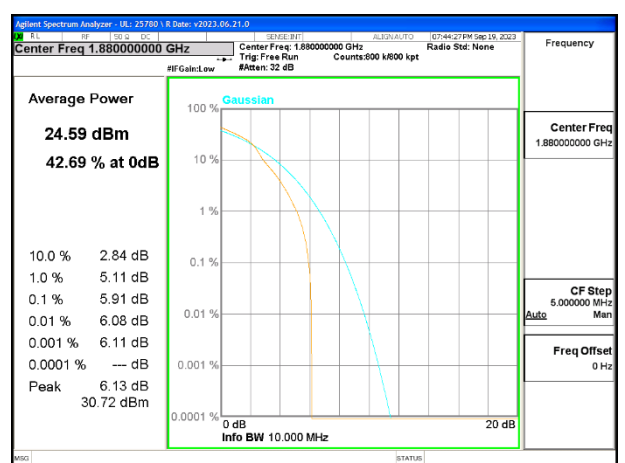
LTE B2 1.4MHz QPSK Mid Channel



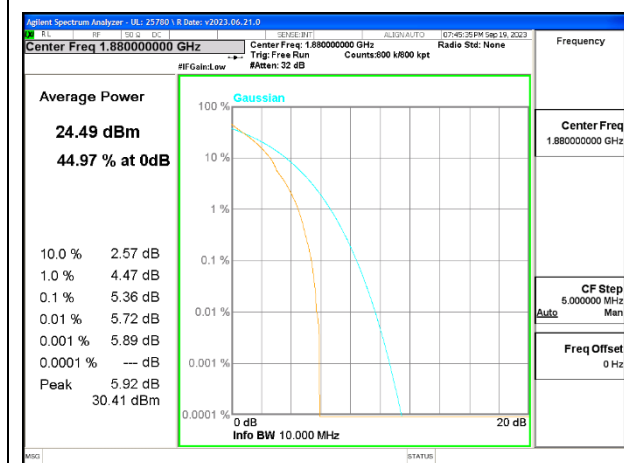
LTE B2 1.4MHz 16QAM Mid Channel



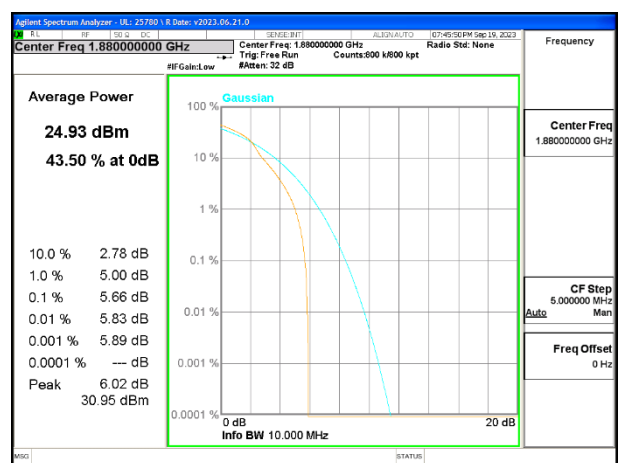
LTE B2 3MHz QPSK Mid Channel



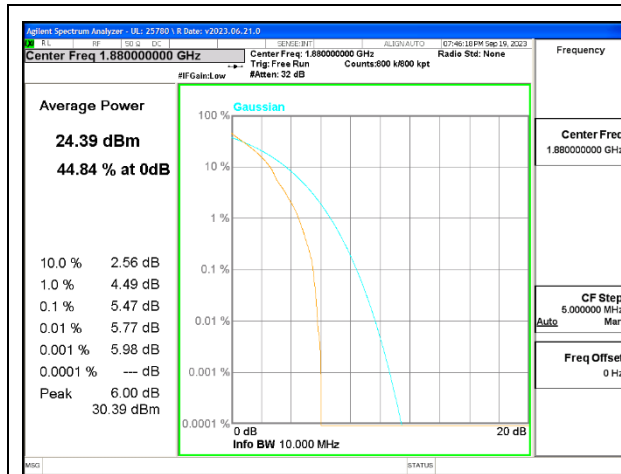
LTE B2 3MHz 16QAM Mid Channel



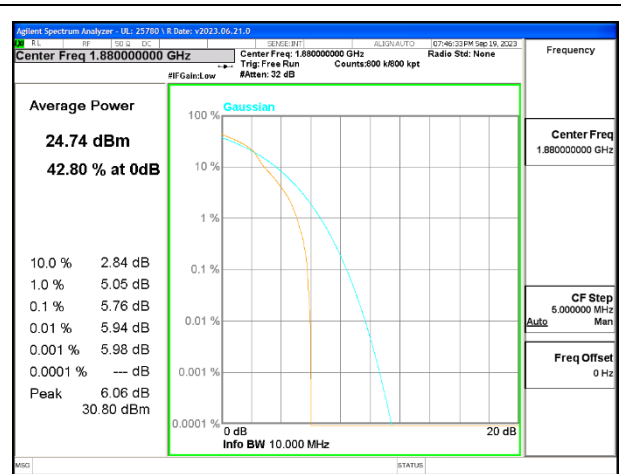
LTE B2 5MHz QPSK Mid Channel



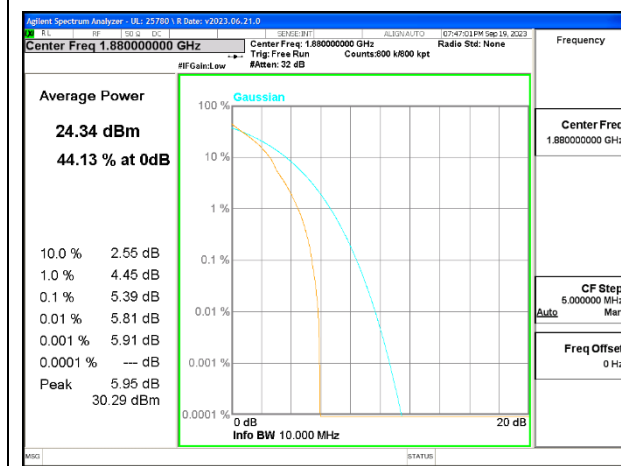
LTE B2 5MHz 16QAM Mid Channel



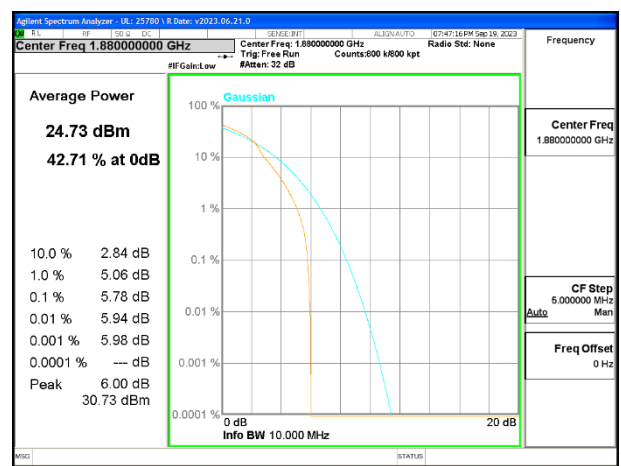
LTE B2 10MHz QPSK Mid Channel



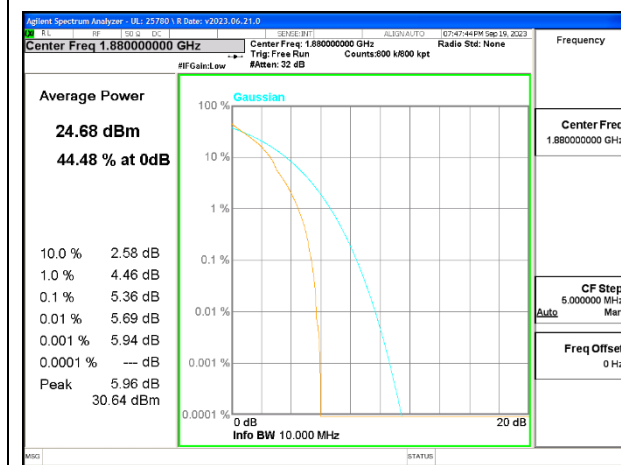
LTE B2 10MHz 16QAM Mid Channel



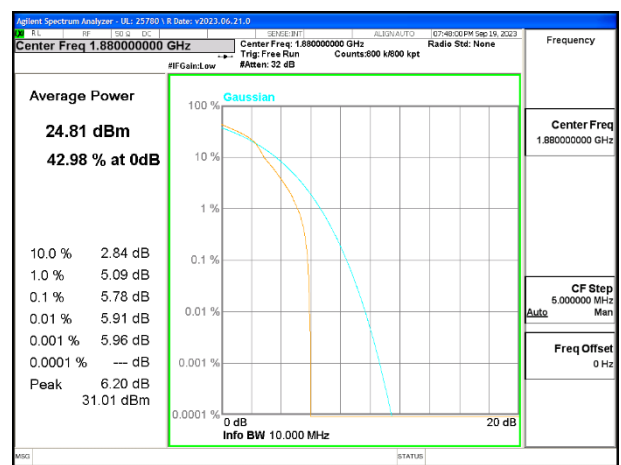
LTE B2 15MHz QPSK Mid Channel



LTE B2 15MHz 16QAM Mid Channel

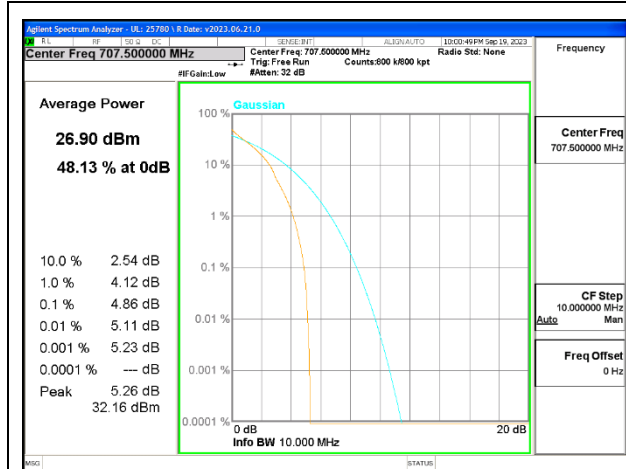


LTE B2 20MHz QPSK Mid Channel

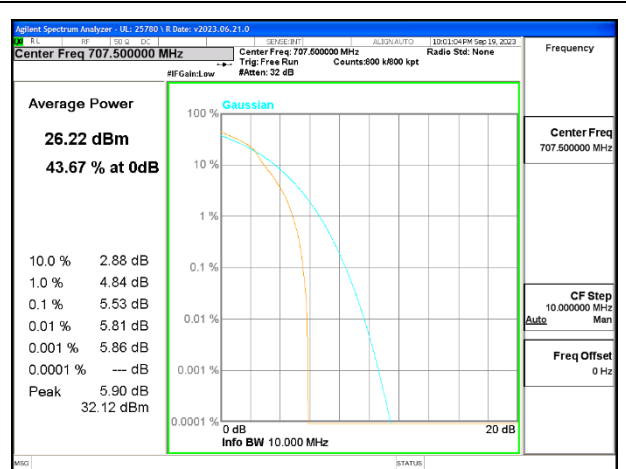


LTE B2 20MHz 16QAM Mid Channel

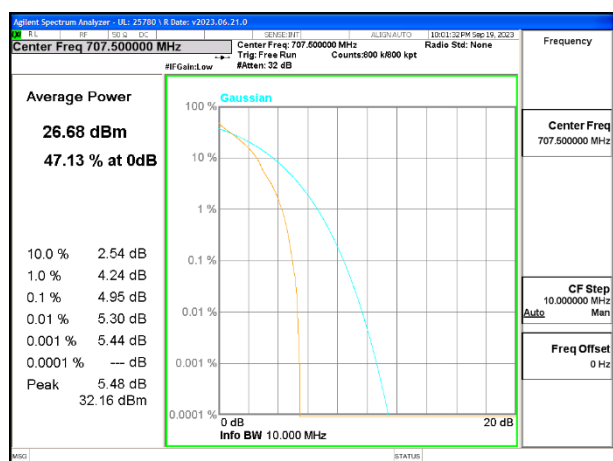
9.5.4. LTE BAND 12



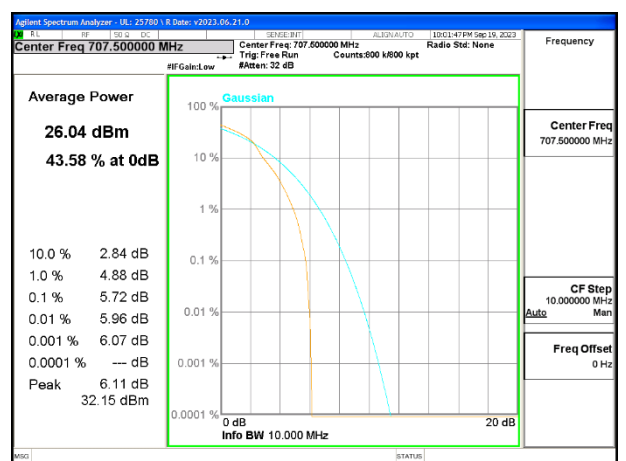
LTE B12 1.4MHz QPSK Mid Channel



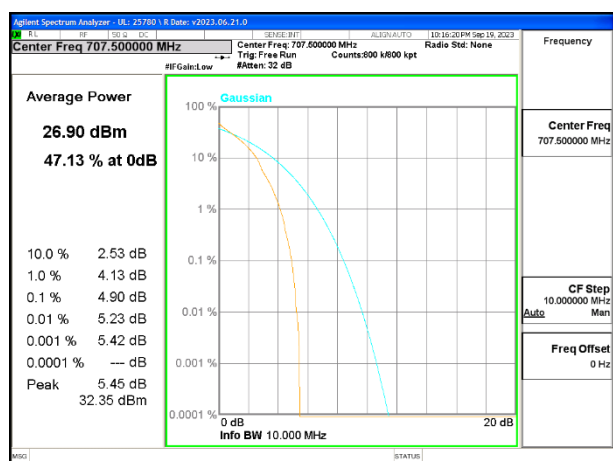
LTE B12 1.4MHz 16QAM Mid Channel



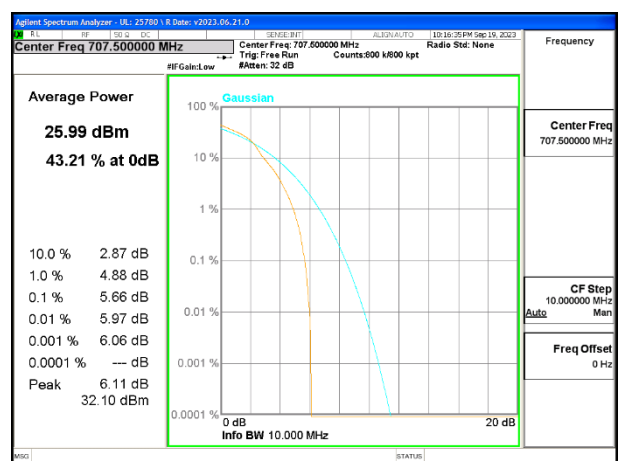
LTE B12 3MHz QPSK Mid Channel



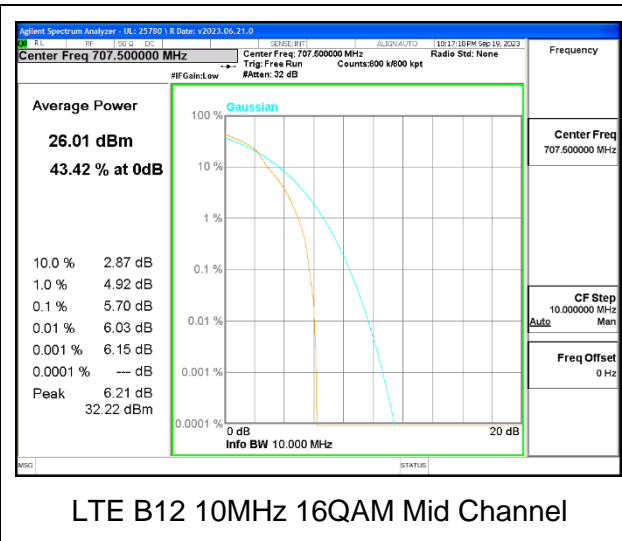
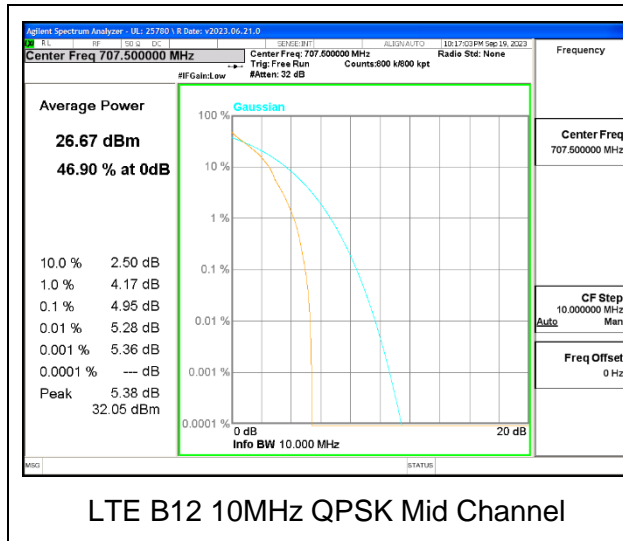
LTE B12 3MHz 16QAM Mid Channel



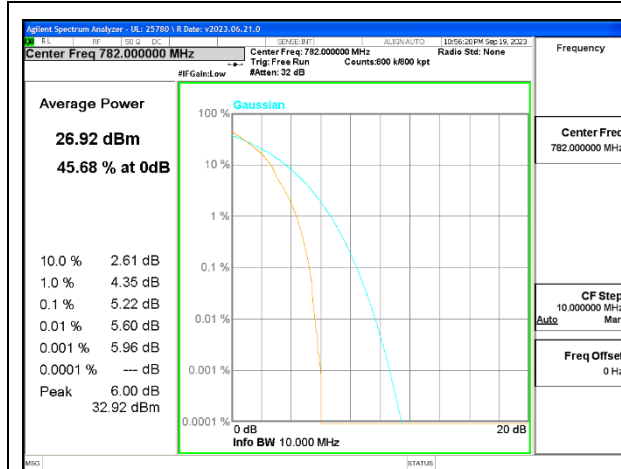
LTE B12 5MHz QPSK Mid Channel



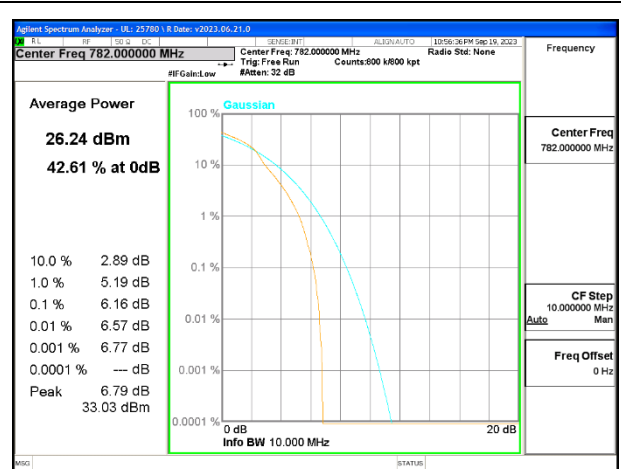
LTE B12 5MHz 16QAM Mid Channel



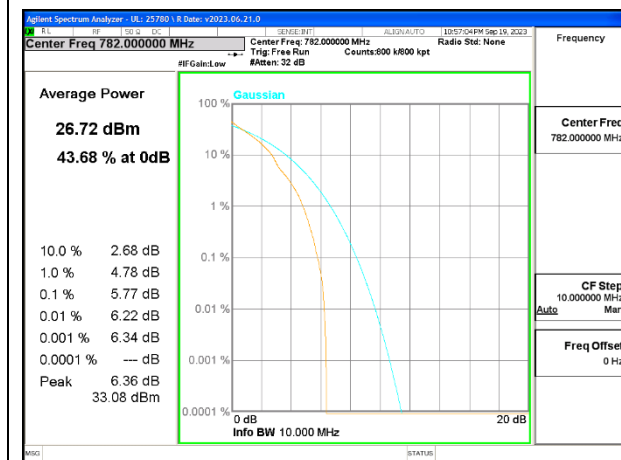
9.5.5. LTE BAND 13



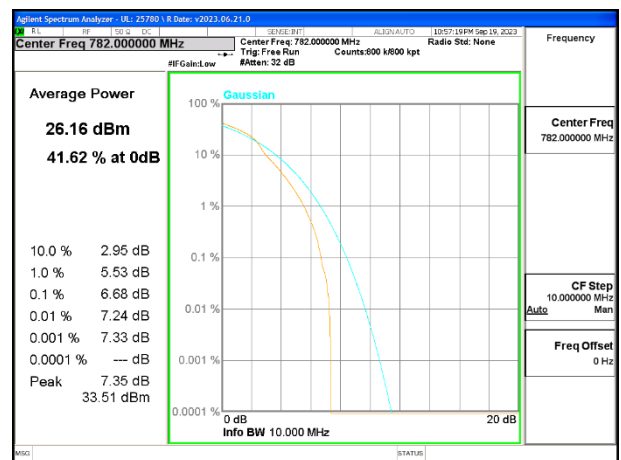
LTE B13 5MHz QPSK Mid Channel



LTE B13 5MHz 16QAM Mid Channel

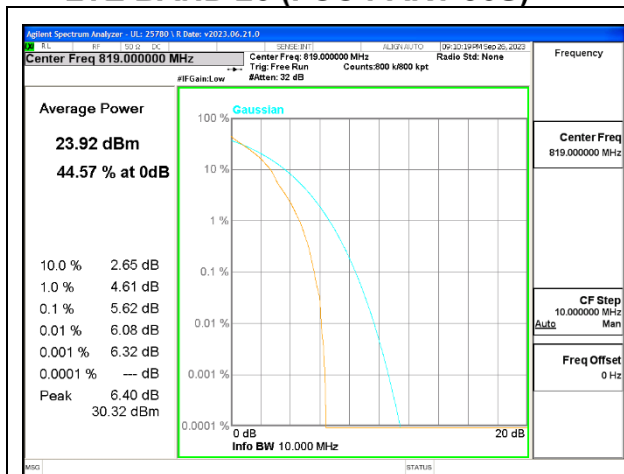


LTE B13 10MHz QPSK Mid Channel

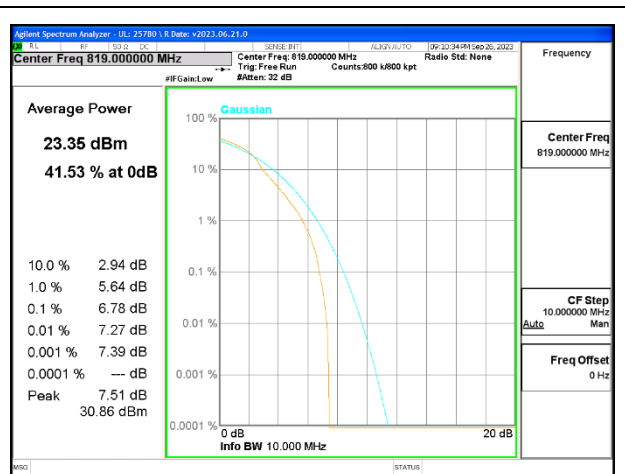


LTE B13 10MHz 16QAM Mid Channel

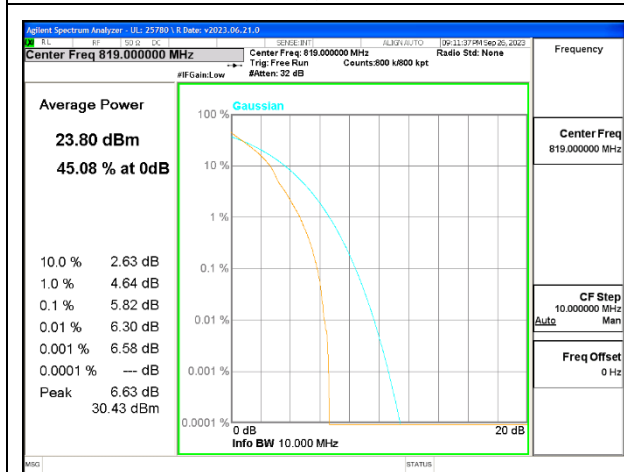
9.5.6. LTE BAND 26 (FCC PART 90S)



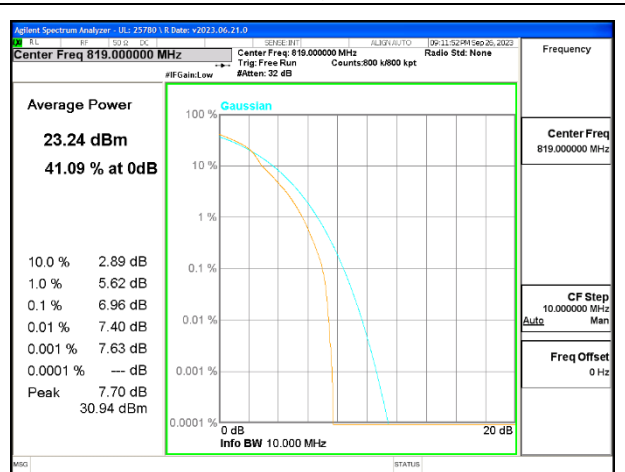
LTE B26 1.4MHz QPSK Middle Channel



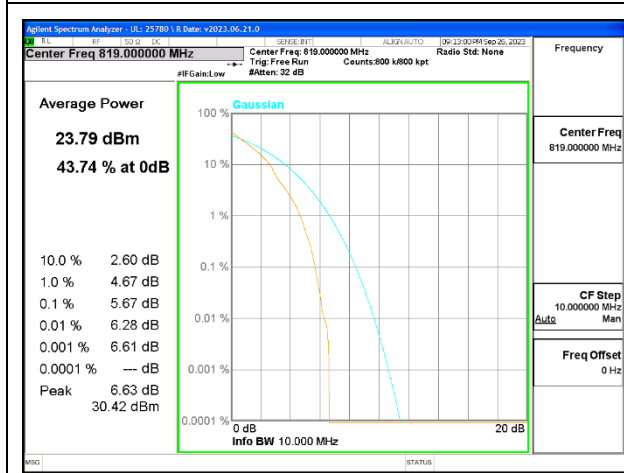
LTE B26 1.4MHz 16QAM Middle Channel



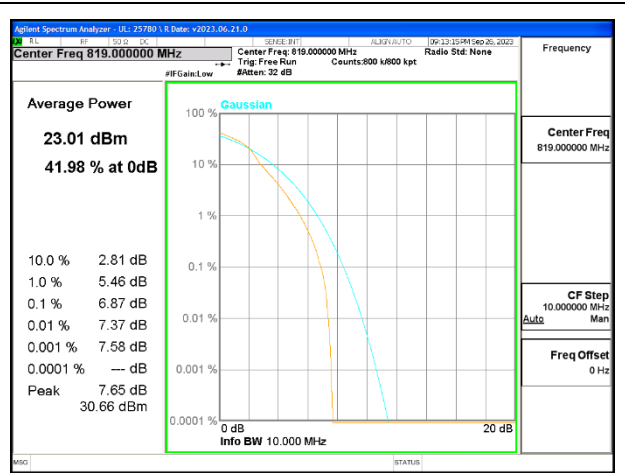
LTE B26 3MHz QPSK Middle Channel



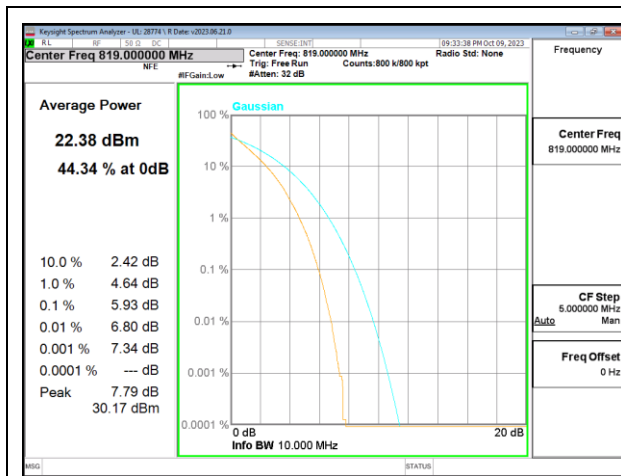
LTE B26 3MHz 16QAM Middle Channel



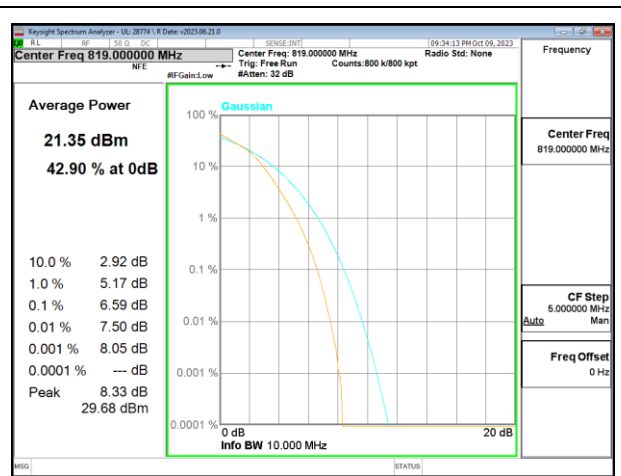
LTE B26 5MHz QPSK Middle Channel



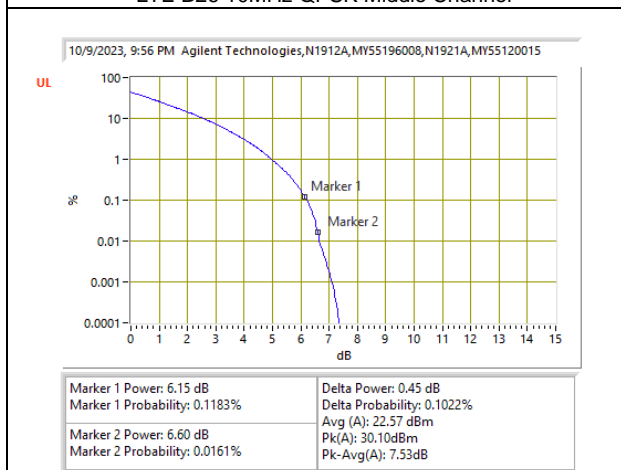
LTE B26 5MHz 16QAM Middle Channel



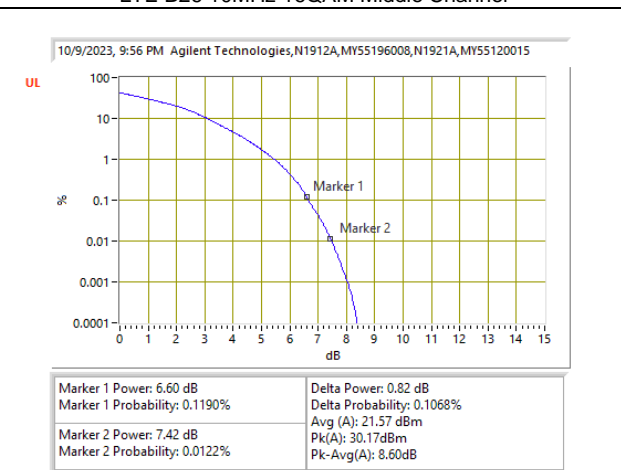
LTE B26 10MHz QPSK Middle Channel



LTE B26 10MHz 16QAM Middle Channel

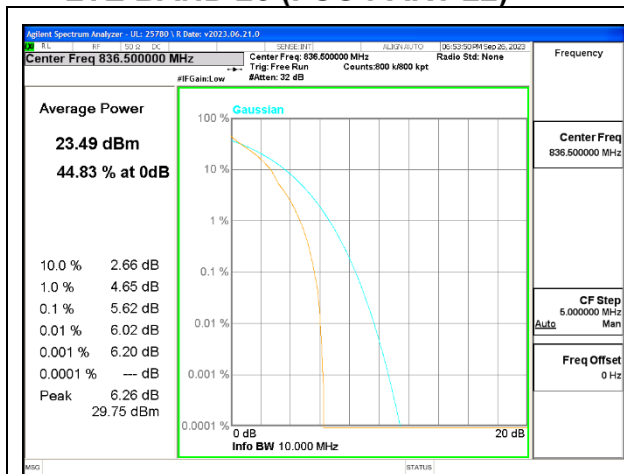


LTE B26 15MHz QPSK Middle Channel

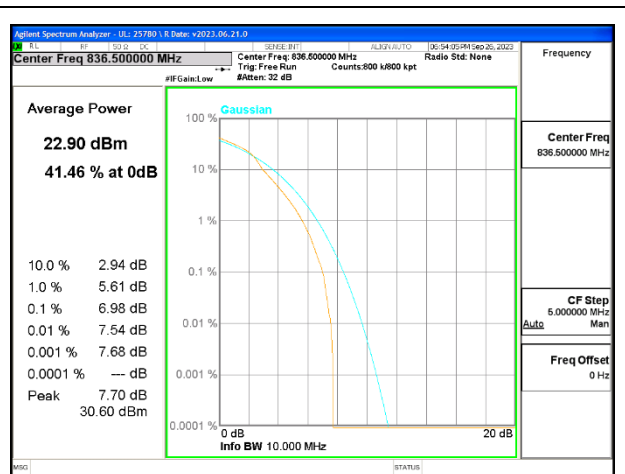


LTE B26 15MHz 16QAM Middle Channel

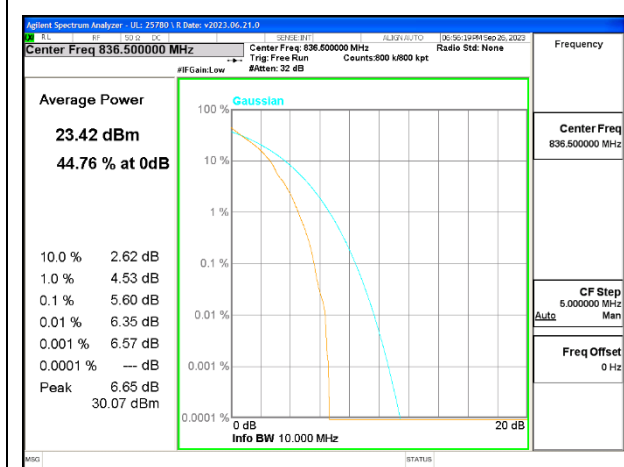
9.5.7. LTE BAND 26 (FCC PART 22)



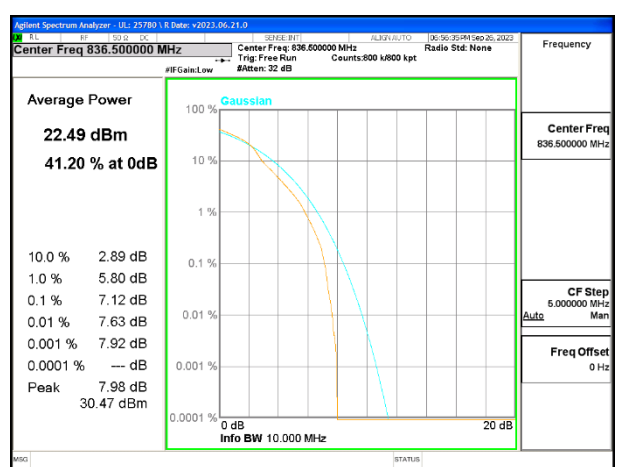
LTE B26 1.4MHz QPSK Middle Channel



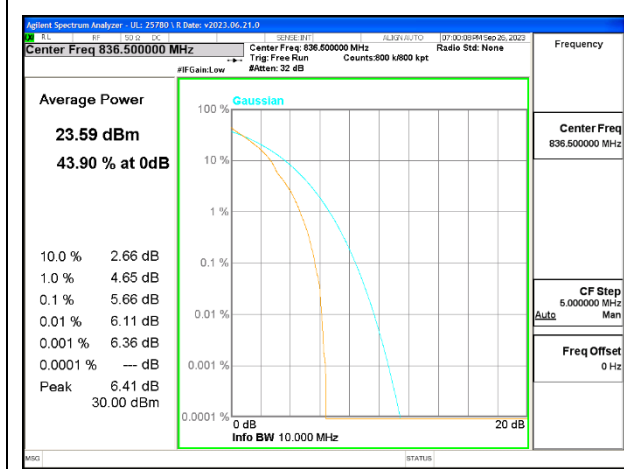
LTE B26 1.4MHz 16QAM Middle Channel



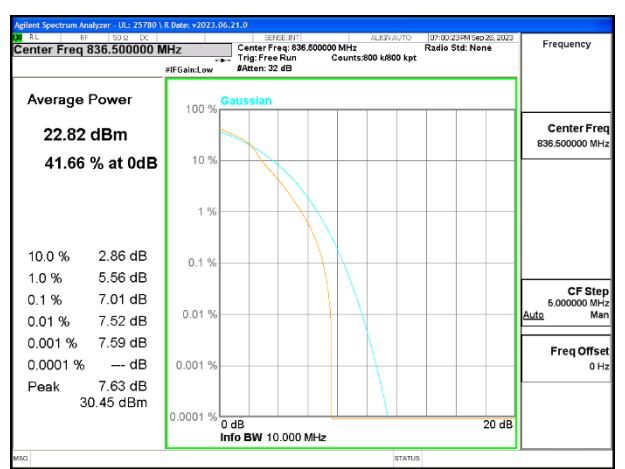
LTE B26 3MHz QPSK Middle Channel



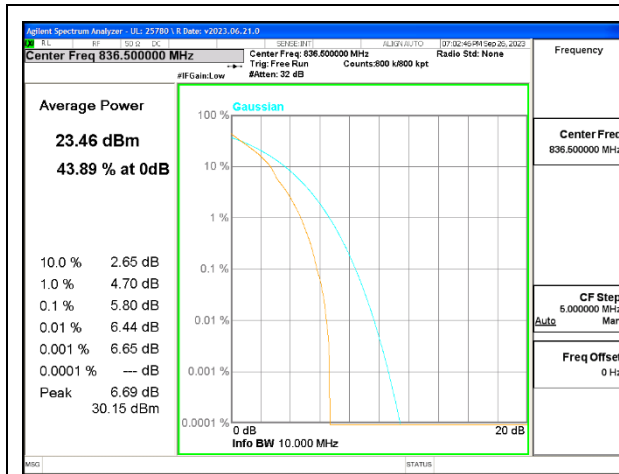
LTE B26 3MHz 16QAM Middle Channel



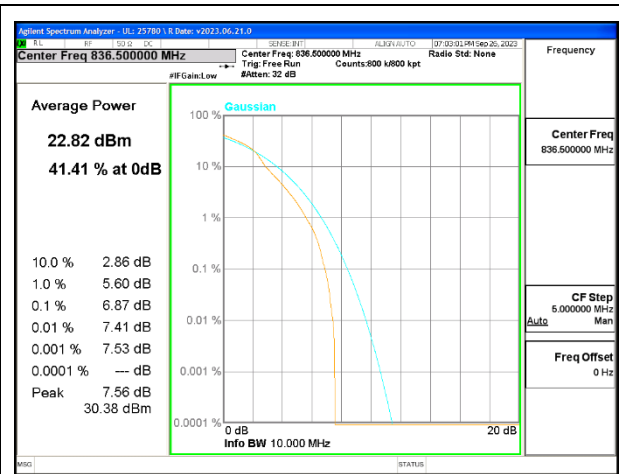
LTE B26 5MHz QPSK Middle Channel



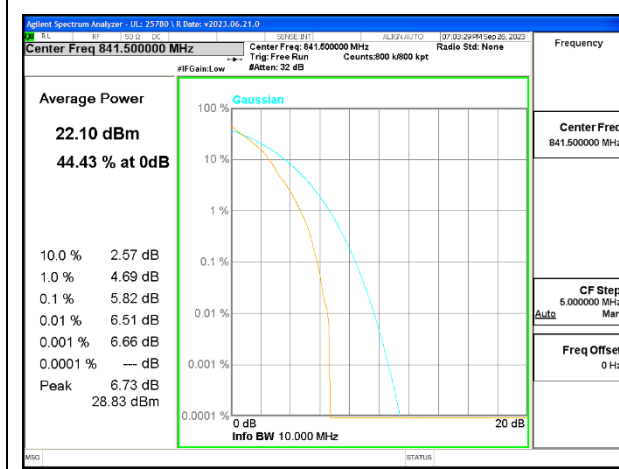
LTE B26 5MHz 16QAM Middle Channel



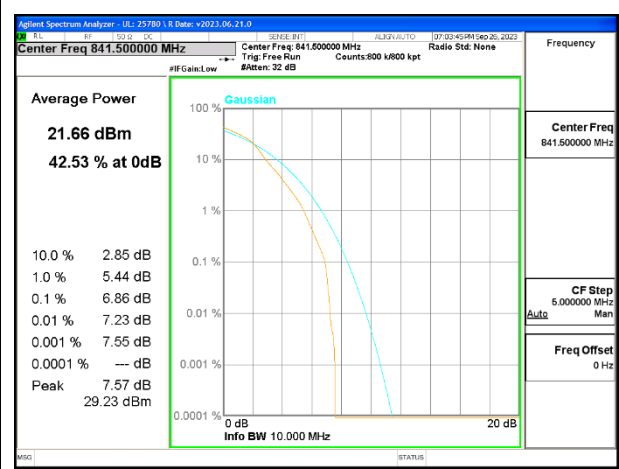
LTE B26 10MHz QPSK Middle Channel



LTE B26 10MHz 16QAM Middle Channel

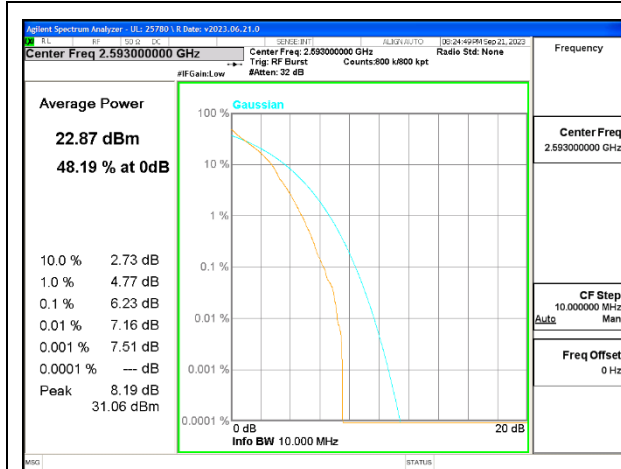


LTE B26 15MHz QPSK Middle Channel

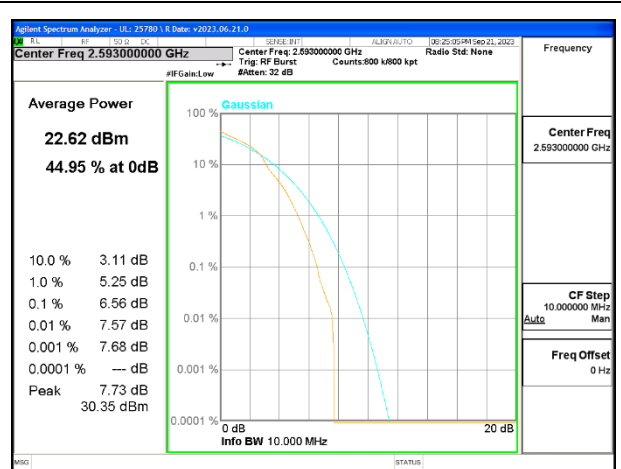


LTE B26 15MHz 16QAM Middle Channel

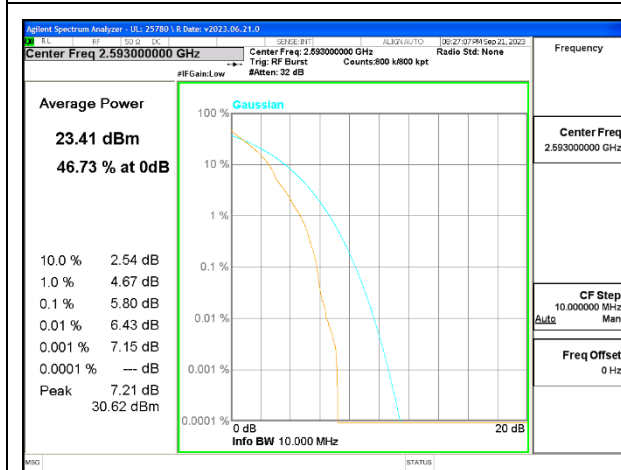
9.5.8. LTE BAND 41



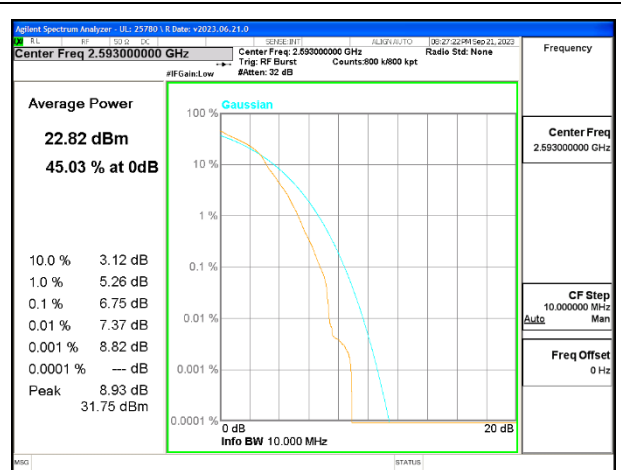
LTE B41 5MHz QPSK Middle Channel



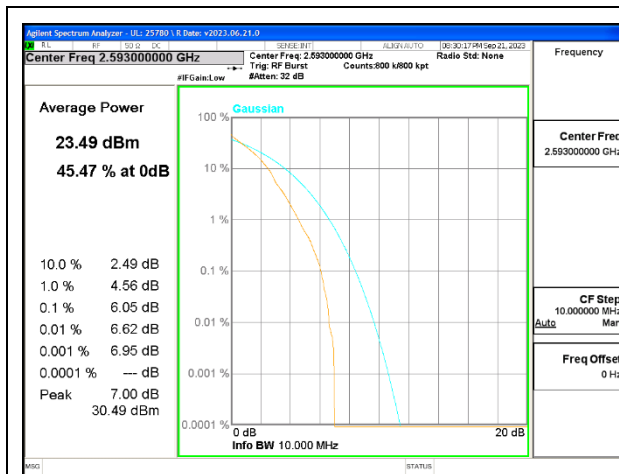
LTE B41 5MHz 16QAM Middle Channel



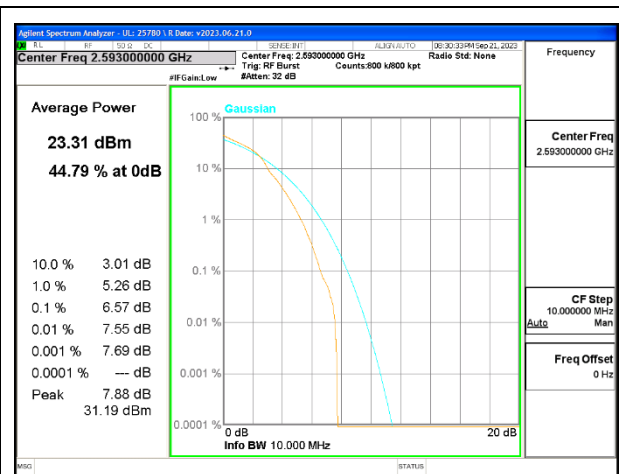
LTE B41 10MHz QPSK Middle Channel



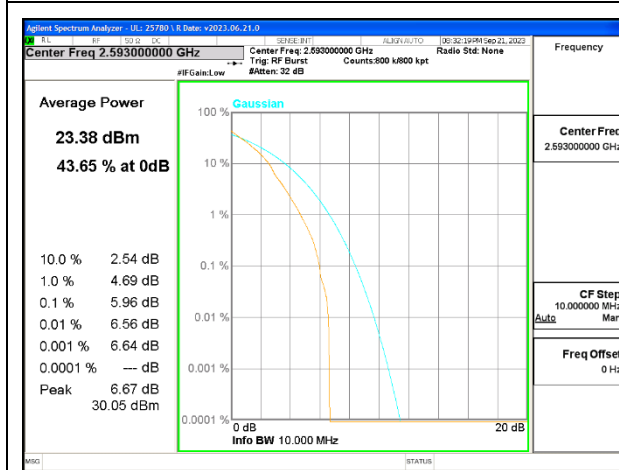
LTE B41 10MHz 16QAM Middle Channel



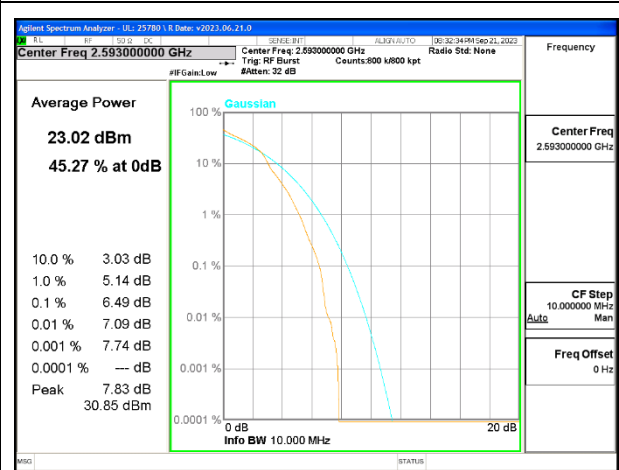
LTE B41 15MHz QPSK Middle Channel



LTE B41 15MHz 16QAM Middle Channel



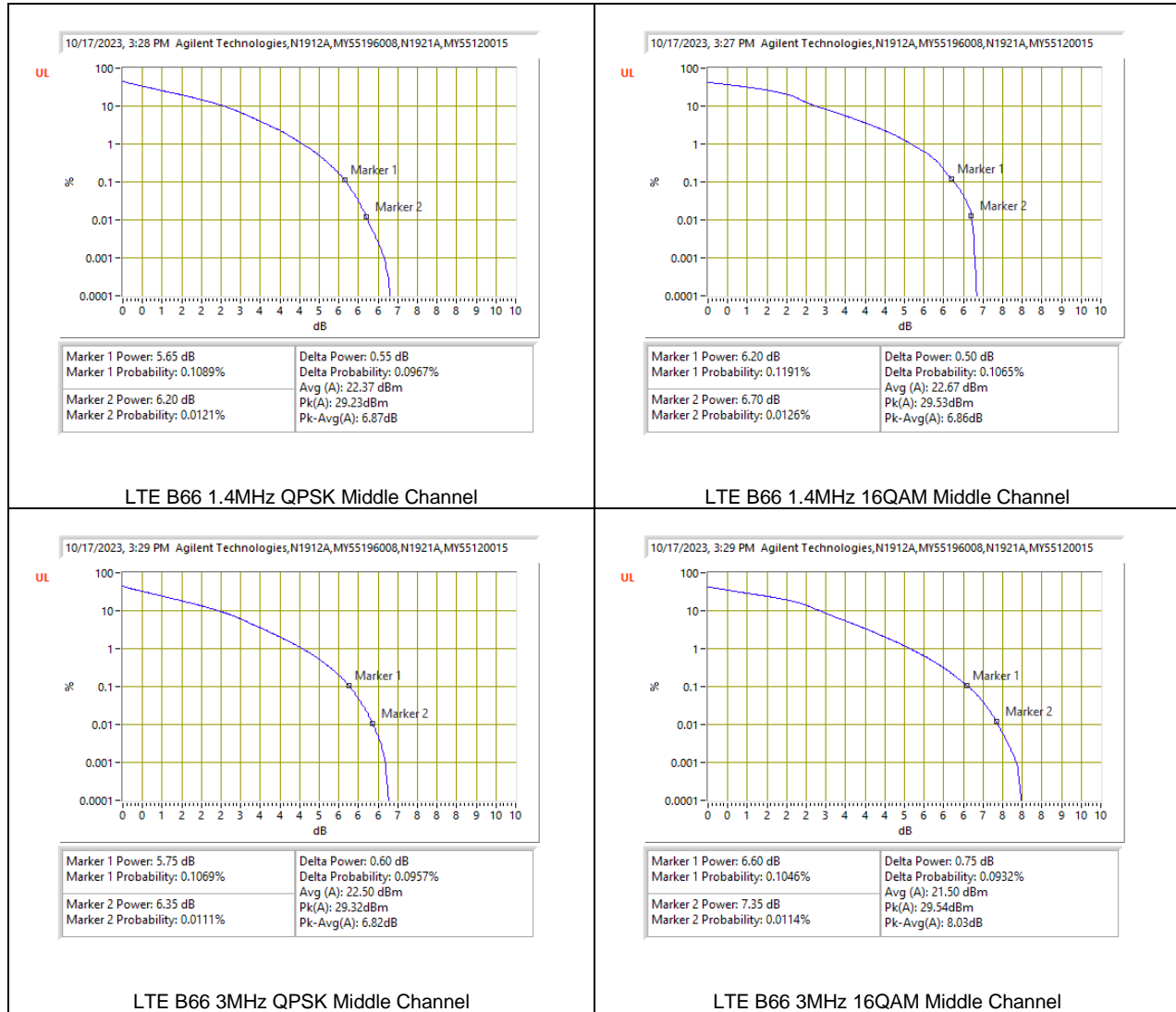
LTE B41 20MHz QPSK Middle Channel

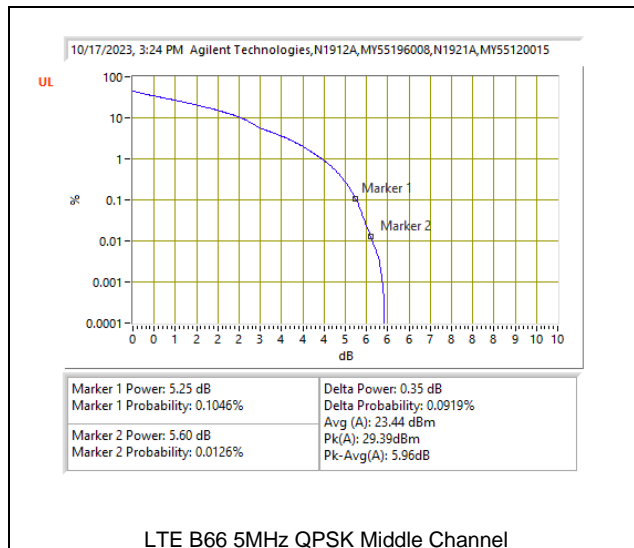


LTE B41 20MHz 16QAM Middle Channel

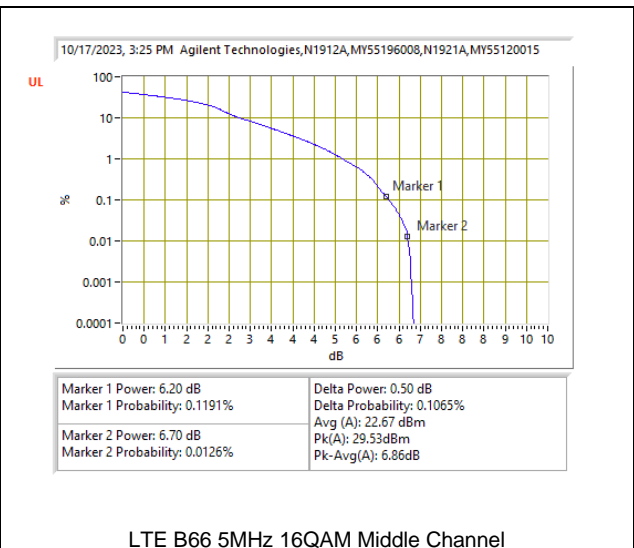
9.5.9. LTE BAND 66

| | | | |
|--------------------------|-------|-------------------|------------|
| Test Engineer ID: | 27342 | Test Date: | 10/17/2023 |
|--------------------------|-------|-------------------|------------|

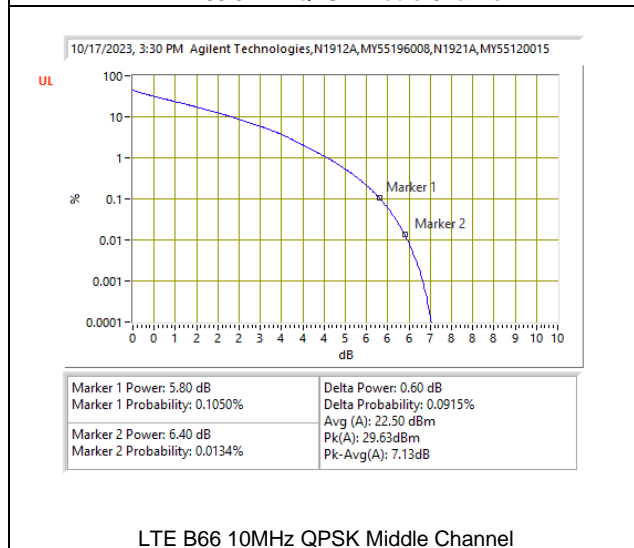




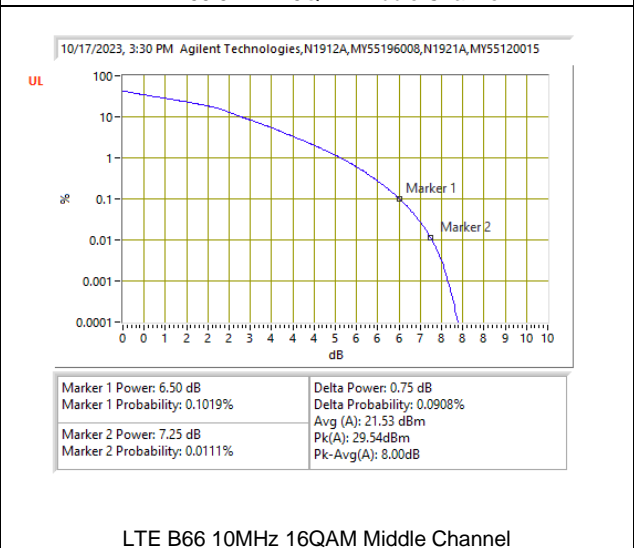
LTE B66 5MHz QPSK Middle Channel



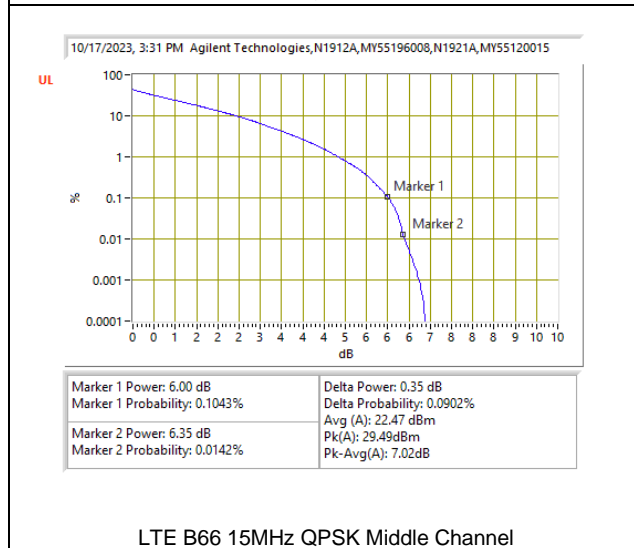
LTE B66 5MHz 16QAM Middle Channel



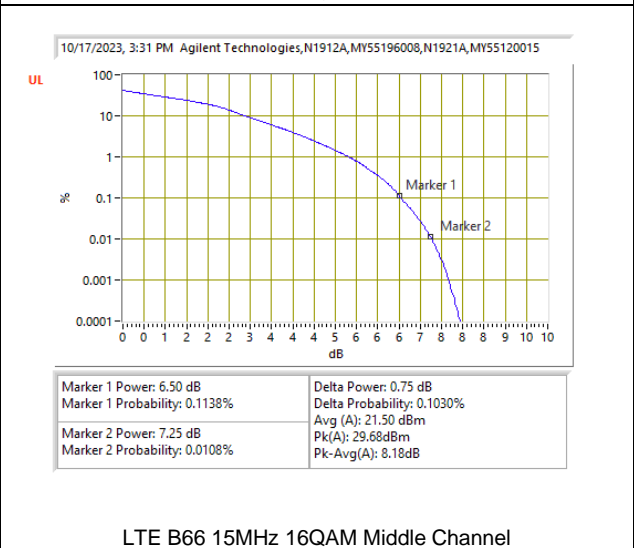
LTE B66 10MHz QPSK Middle Channel



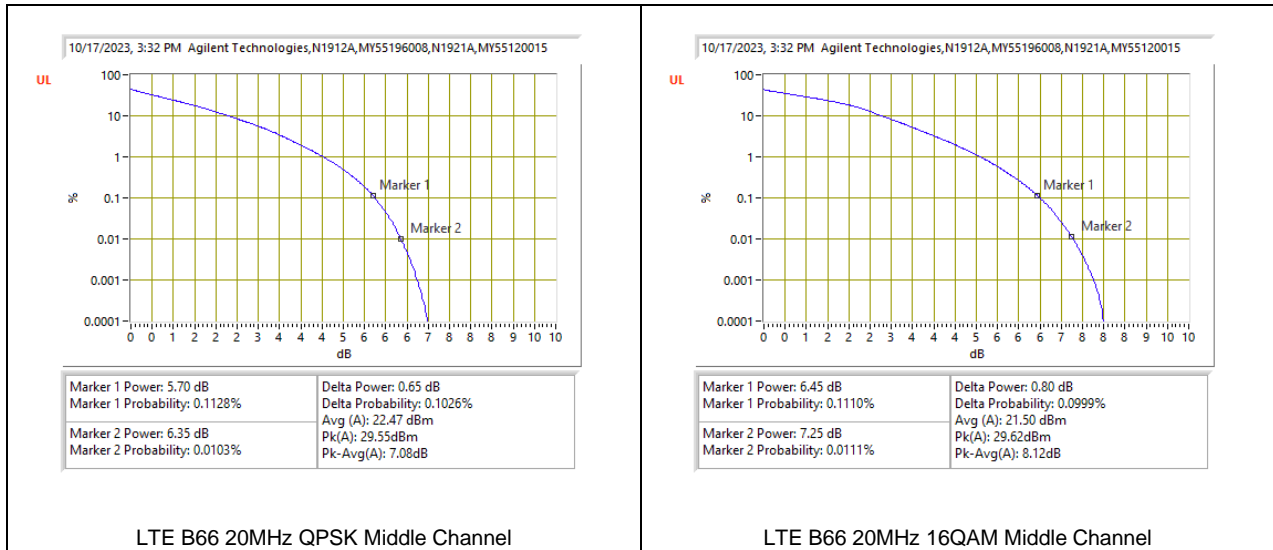
LTE B66 10MHz 16QAM Middle Channel



LTE B66 15MHz QPSK Middle Channel



LTE B66 15MHz 16QAM Middle Channel



10. RADIATED TEST RESULTS

10.1. EFFECTIVE RADIATED POWER ERP/EIRP

RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27.50, §90.691

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50(c) - (10) Portable stations (hand-held devices) are limited to 3 watts ERP; (LTE B12)

27.50(d) - (4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.(Band 66)

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13dB.

TEST PROCEDURE

ANSI / TIA / EIA 603-E (2016), Clause 2.2.17; PSA setting reference to 971168 D01 v03r01

For peak power measurement with a PSA:

a) Set the RBW \geq OBW; b) Set VBW $\geq 3 \times$ RBW; c) Set span $\geq 2 \times$ RBW; d) Sweep time = auto couple; e) Detector = peak; f) Ensure that the number of measurement points \geq span/RBW; g) Trace mode = max hold;

For average power measurement with a PSA:

a) Set span to at least 1.5 times the OBW; b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz; c) Set VBW $\geq 3 \times$ RBW; d) Set number of points in sweep $\geq 2 \times$ span / RBW; e) Sweep time = auto-couple; f) Detector = RMS (power averaging); g) Use free run trigger If burst duty cycle ≥ 98 ; h) Use trigger to capture bursts If burst duty cycle < 98 ; i) Trace average at least 100 traces in power averaging (i.e., RMS) mode. j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function.

TEST RESULTS

GSM

| Band | Mode | Channel | f(MHz) | ERP/EIRP | |
|----------|-------|---------|--------|----------|-------|
| | | | | dBm | W |
| GSM 850 | GPRS | 128 | 824.2 | 26.33 | 0.429 |
| | | 190 | 836.6 | 28.10 | 0.645 |
| | | 251 | 848.8 | 27.26 | 0.532 |
| | EGPRS | 128 | 824.2 | 25.85 | 0.385 |
| | | 190 | 836.6 | 28.00 | 0.631 |
| | | 251 | 848.8 | 27.36 | 0.545 |
| GSM 1900 | GPRS | 512 | 1850.2 | 24.12 | 0.258 |
| | | 661 | 1880.0 | 23.27 | 0.212 |
| | | 810 | 1909.8 | 23.44 | 0.221 |
| | EGPRS | 512 | 1850.2 | 23.17 | 0.207 |
| | | 661 | 1880.0 | 23.56 | 0.227 |
| | | 810 | 1909.8 | 23.30 | 0.214 |

WCDMA

| Band | Mode | Channel | f(MHz) | ERP/EIRP | |
|--------|-------|---------|--------|----------|-------|
| | | | | dBm | W |
| Band 2 | REL99 | 9262 | 1852.4 | 16.90 | 0.049 |
| | | 9400 | 1880 | 15.77 | 0.038 |
| | | 9538 | 1907.6 | 13.58 | 0.023 |
| | HSDPA | 9262 | 1852.4 | 14.20 | 0.026 |
| | | 9400 | 1880.0 | 10.50 | 0.011 |
| | | 9538 | 1907.6 | 12.41 | 0.017 |
| Band 5 | REL99 | 4132 | 826.4 | 14.16 | 0.026 |
| | | 4183 | 836.6 | 17.14 | 0.052 |
| | | 4233 | 846.6 | 17.33 | 0.054 |
| | HSDPA | 4132 | 826.4 | 13.76 | 0.024 |
| | | 4183 | 836.6 | 14.11 | 0.026 |
| | | 4233 | 846.6 | 14.68 | 0.029 |
| Band 4 | REL99 | 1312 | 1712.4 | 15.45 | 0.035 |
| | | 1413 | 1732.6 | 16.66 | 0.046 |
| | | 1513 | 1752.6 | 17.07 | 0.051 |
| | HSDPA | 1312 | 1712.4 | 15.35 | 0.034 |
| | | 1413 | 1732.6 | 16.41 | 0.044 |
| | | 1513 | 1752.6 | 12.24 | 0.017 |

LTE Band 2

| BW (MHz) | Mode | RB/RB Size | f(MHz) | EIRP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 20 | QPSK | 1/0 | 1860 | 23.10 | 0.204 |
| | | 1/0 | 1880 | 23.47 | 0.222 |
| | | 1/0 | 1900 | 20.81 | 0.121 |
| | 16QAM | 1/0 | 1860 | 22.94 | 0.197 |
| | | 1/0 | 1880 | 23.24 | 0.211 |
| | | 1/0 | 1900 | 20.46 | 0.111 |
| 15 | QPSK | 1/0 | 1857.5 | 25.00 | 0.316 |
| | | 1/0 | 1880 | 25.57 | 0.361 |
| | | 1/0 | 1902.5 | 24.87 | 0.307 |
| | 16QAM | 1/0 | 1857.5 | 24.68 | 0.294 |
| | | 1/0 | 1880 | 24.56 | 0.286 |
| | | 1/0 | 1902.5 | 24.19 | 0.262 |
| 10 | QPSK | 1/0 | 1855 | 23.19 | 0.208 |
| | | 1/0 | 1880 | 23.47 | 0.222 |
| | | 1/0 | 1905 | 22.52 | 0.179 |
| | 16QAM | 1/0 | 1855 | 22.83 | 0.192 |
| | | 1/0 | 1880 | 23.19 | 0.208 |
| | | 1/0 | 1905 | 22.00 | 0.158 |
| 5 | QPSK | 1/0 | 1852.5 | 24.45 | 0.279 |
| | | 1/0 | 1880 | 23.05 | 0.202 |
| | | 1/0 | 1907.5 | 23.10 | 0.204 |
| | 16QAM | 1/0 | 1852.5 | 23.42 | 0.220 |
| | | 1/0 | 1880 | 22.84 | 0.192 |
| | | 1/0 | 1907.5 | 22.70 | 0.186 |
| 3 | QPSK | 1/0 | 1851.5 | 24.70 | 0.295 |
| | | 1/0 | 1880 | 25.54 | 0.358 |
| | | 1/0 | 1908.5 | 26.13 | 0.410 |
| | 16QAM | 1/0 | 1851.5 | 24.37 | 0.274 |
| | | 1/0 | 1880 | 25.04 | 0.319 |
| | | 1/0 | 1908.5 | 25.28 | 0.337 |
| 1.4 | QPSK | 1/0 | 1850.7 | 24.15 | 0.260 |
| | | 1/0 | 1880 | 24.76 | 0.299 |
| | | 1/0 | 1909.3 | 23.04 | 0.201 |
| | 16QAM | 1/0 | 1850.7 | 23.87 | 0.244 |
| | | 1/0 | 1880 | 24.15 | 0.260 |
| | | 1/0 | 1909.3 | 22.84 | 0.192 |

LTE Band 12

| BW (MHz) | Mode | RB/RB Size | f(MHz) | ERP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 10 | QPSK | 1/0 | 704 | 20.69 | 0.117 |
| | | 1/0 | 707.5 | 20.11 | 0.103 |
| | | 1/0 | 711 | 20.08 | 0.102 |
| | 16QAM | 1/0 | 704 | 18.97 | 0.079 |
| | | 1/0 | 707.5 | 19.03 | 0.080 |
| | | 1/0 | 711 | 18.96 | 0.079 |
| 5 | QPSK | 1/0 | 701.5 | 20.48 | 0.112 |
| | | 1/0 | 707.5 | 19.97 | 0.099 |
| | | 1/0 | 713.5 | 19.86 | 0.097 |
| | 16QAM | 1/0 | 701.5 | 19.48 | 0.089 |
| | | 1/0 | 707.5 | 19.02 | 0.080 |
| | | 1/0 | 713.5 | 18.73 | 0.075 |
| 3 | QPSK | 1/0 | 700.5 | 20.55 | 0.114 |
| | | 1/0 | 707.5 | 19.84 | 0.096 |
| | | 1/0 | 714.5 | 20.24 | 0.106 |
| | 16QAM | 1/0 | 700.5 | 19.55 | 0.090 |
| | | 1/0 | 707.5 | 18.99 | 0.079 |
| | | 1/0 | 714.5 | 19.18 | 0.083 |
| 1.4 | QPSK | 1/0 | 699.7 | 20.64 | 0.116 |
| | | 1/0 | 707.5 | 19.92 | 0.098 |
| | | 1/0 | 715.3 | 20.92 | 0.124 |
| | 16QAM | 1/0 | 699.7 | 19.26 | 0.084 |
| | | 1/0 | 707.5 | 18.81 | 0.076 |
| | | 1/0 | 715.3 | 19.79 | 0.095 |

LTE Band 13

| BW (MHz) | Mode | RB/RB Size | f(MHz) | ERP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 10 | QPSK | 1/0 | 782 | 19.99 | 0.100 |
| | | | | | |
| | 16QAM | 1/0 | 782 | 19.65 | 0.092 |
| | | | | | |
| 5 | QPSK | 1/0 | 779.5 | 20.62 | 0.115 |
| | | 1/0 | 782 | 19.99 | 0.100 |
| | | 1/0 | 784.5 | 20.19 | 0.104 |
| | 16QAM | 1/0 | 779.5 | 19.63 | 0.092 |
| | | 1/0 | 782 | 19.65 | 0.092 |
| | | 1/0 | 784.5 | 19.16 | 0.082 |

LTE Band 26 (FCC PART 90S)

| BW (MHz) | Mode | RB/RB Size | f(MHz) | ERP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 15 | QPSK | 1/0 | 819 | 20.69 | 0.117 |
| | | | | | |
| | 16QAM | 1/0 | 819 | 19.83 | 0.096 |
| | | | | | |
| 10 | QPSK | 1/0 | 819 | 21.97 | 0.157 |
| | | | | | |
| | 16QAM | 1/0 | 819 | 20.87 | 0.122 |
| | | | | | |
| 5 | QPSK | 1/0 | 816.5 | 22.91 | 0.195 |
| | | 1/0 | 819 | 22.99 | 0.199 |
| | | 1/0 | 821.5 | 22.57 | 0.181 |
| | 16QAM | 1/0 | 816.5 | 22.11 | 0.163 |
| | | 1/0 | 819 | 22.11 | 0.163 |
| | | 1/0 | 821.5 | 21.39 | 0.138 |
| 3 | QPSK | 1/0 | 815.5 | 22.96 | 0.198 |
| | | 1/0 | 819 | 21.96 | 0.157 |
| | | 1/0 | 822.5 | 23.20 | 0.209 |
| | 16QAM | 1/0 | 815.5 | 22.12 | 0.163 |
| | | 1/0 | 819 | 21.04 | 0.127 |
| | | 1/0 | 822.5 | 21.85 | 0.153 |
| 1.4 | QPSK | 1/0 | 814.7 | 22.84 | 0.192 |
| | | 1/0 | 819 | 22.64 | 0.184 |
| | | 1/0 | 823.3 | 23.26 | 0.212 |
| | 16QAM | 1/0 | 814.7 | 22.01 | 0.159 |
| | | 1/0 | 819 | 21.69 | 0.148 |
| | | 1/0 | 823.3 | 22.17 | 0.165 |

LTE Band 26 (FCC PART 22)

| BW (MHz) | Mode | RB/RB Size | f(MHz) | ERP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 15 | QPSK | 1/0 | 831.5 | 16.18 | 0.041 |
| | | 1/0 | 836.5 | 16.31 | 0.043 |
| | | 1/0 | 841.5 | 16.42 | 0.044 |
| | 16QAM | 1/0 | 831.5 | 15.81 | 0.038 |
| | | 1/0 | 836.5 | 15.9 | 0.039 |
| | | 1/0 | 841.5 | 15.96 | 0.039 |
| 10 | QPSK | 1/0 | 829.0 | 16.35 | 0.043 |
| | | 1/0 | 836.5 | 16.39 | 0.044 |
| | | 1/0 | 844.0 | 12.27 | 0.016 |
| | 16QAM | 1/0 | 829.0 | 15.91 | 0.039 |
| | | 1/0 | 836.5 | 15.96 | 0.039 |
| | | 1/0 | 844.0 | 12.12 | 0.013 |
| 5 | QPSK | 1/0 | 826.5 | 17.83 | 0.061 |
| | | 1/0 | 836.5 | 16.30 | 0.043 |
| | | 1/0 | 846.5 | 13.09 | 0.020 |
| | 16QAM | 1/0 | 826.5 | 17.42 | 0.028 |
| | | 1/0 | 836.5 | 15.92 | 0.039 |
| | | 1/0 | 846.5 | 12.59 | 0.018 |
| 3 | QPSK | 1/0 | 825.5 | 17.84 | 0.061 |
| | | 1/0 | 836.5 | 16.35 | 0.043 |
| | | 1/0 | 847.5 | 12.91 | 0.020 |
| | 16QAM | 1/0 | 825.5 | 17.44 | 0.028 |
| | | 1/0 | 836.5 | 15.91 | 0.039 |
| | | 1/0 | 847.5 | 12.06 | 0.016 |
| 1.4 | QPSK | 1/0 | 824.7 | 17.77 | 0.060 |
| | | 1/0 | 836.5 | 16.15 | 0.041 |
| | | 1/0 | 848.3 | 12.28 | 0.017 |
| | 16QAM | 1/0 | 824.7 | 17.36 | 0.054 |
| | | 1/0 | 836.5 | 15.93 | 0.039 |
| | | 1/0 | 848.3 | 10.28 | 0.011 |

LTE Band 41

| BW (MHz) | Mode | RB/RB Size | f(MHz) | EIRP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 20 | QPSK | 1/0 | 2506 | 16.97 | 0.050 |
| | | 1/0 | 2593 | 19.41 | 0.087 |
| | | 1/0 | 2680 | 16.95 | 0.050 |
| | 16QAM | 1/0 | 2506 | 17.21 | 0.053 |
| | | 1/0 | 2593 | 19.36 | 0.086 |
| | | 1/0 | 2680 | 16.29 | 0.043 |
| 15 | QPSK | 1/0 | 2503.5 | 15.93 | 0.039 |
| | | 1/0 | 2593 | 20.37 | 0.109 |
| | | 1/0 | 2682.5 | 17.72 | 0.059 |
| | 16QAM | 1/0 | 2503.5 | 16.93 | 0.049 |
| | | 1/0 | 2593 | 19.66 | 0.092 |
| | | 1/0 | 2682.5 | 17.18 | 0.052 |
| 10 | QPSK | 1/0 | 2501 | 18.01 | 0.063 |
| | | 1/0 | 2593 | 21.11 | 0.129 |
| | | 1/0 | 2685 | 18.26 | 0.067 |
| | 16QAM | 1/0 | 2501 | 17.72 | 0.059 |
| | | 1/0 | 2593 | 19.14 | 0.082 |
| | | 1/0 | 2685 | 16.97 | 0.050 |
| 5 | QPSK | 1/0 | 2498.5 | 17.93 | 0.062 |
| | | 1/0 | 2593 | 20.93 | 0.124 |
| | | 1/0 | 2687.5 | 17.78 | 0.060 |
| | 16QAM | 1/0 | 2498.5 | 17.53 | 0.057 |
| | | 1/0 | 2593 | 19.59 | 0.091 |
| | | 1/0 | 2687.5 | 16.34 | 0.043 |

LTE Band 66

| BW (MHz) | Mode | RB/RB Size | f(MHz) | EIRP | |
|----------|-------|------------|--------|-------|-------|
| | | | | dBm | W |
| 20 | QPSK | 1/0 | 1720 | 18.36 | 0.069 |
| | | 1/0 | 1745 | 22.19 | 0.166 |
| | | 1/0 | 1770 | 18.79 | 0.076 |
| | 16QAM | 1/0 | 1720 | 18.06 | 0.064 |
| | | 1/0 | 1745 | 22.08 | 0.161 |
| | | 1/0 | 1770 | 18.11 | 0.065 |
| 15 | QPSK | 1/0 | 1717.5 | 20.57 | 0.114 |
| | | 1/0 | 1745 | 21.78 | 0.151 |
| | | 1/0 | 1772.5 | 18.32 | 0.068 |
| | 16QAM | 1/0 | 1717.5 | 20.02 | 0.100 |
| | | 1/0 | 1745 | 21.32 | 0.136 |
| | | 1/0 | 1772.5 | 18.07 | 0.064 |
| 10 | QPSK | 1/0 | 1715 | 20.53 | 0.113 |
| | | 1/0 | 1745 | 21.35 | 0.136 |
| | | 1/0 | 1775 | 19.07 | 0.081 |
| | 16QAM | 1/0 | 1715 | 20.36 | 0.109 |
| | | 1/0 | 1745 | 21.05 | 0.127 |
| | | 1/0 | 1775 | 18.54 | 0.071 |
| 5 | QPSK | 1/0 | 1712.5 | 19.77 | 0.095 |
| | | 1/0 | 1745 | 20.85 | 0.122 |
| | | 1/0 | 1777.5 | 19.56 | 0.090 |
| | 16QAM | 1/0 | 1712.5 | 19.56 | 0.090 |
| | | 1/0 | 1745 | 20.39 | 0.109 |
| | | 1/0 | 1777.5 | 18.11 | 0.065 |
| 3 | QPSK | 1/0 | 1711.5 | 18.73 | 0.075 |
| | | 1/0 | 1745 | 20.63 | 0.116 |
| | | 1/0 | 1778.5 | 20.20 | 0.105 |
| | 16QAM | 1/0 | 1711.5 | 18.48 | 0.070 |
| | | 1/0 | 1745 | 20.32 | 0.108 |
| | | 1/0 | 1778.5 | 19.70 | 0.093 |
| 1.4 | QPSK | 1/0 | 1710.7 | 18.28 | 0.067 |
| | | 1/0 | 1745 | 20.19 | 0.104 |
| | | 1/0 | 1779.3 | 19.56 | 0.090 |
| | 16QAM | 1/0 | 1710.7 | 17.83 | 0.061 |
| | | 1/0 | 1745 | 20.08 | 0.102 |
| | | 1/0 | 1779.3 | 19.12 | 0.082 |

10.1.1. GSM

| GPRS 850 | | | | | | | | | | EGPRS 850 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|-----------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|
| <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: GPRS 850 MHz Fundamentals</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>824.20</td><td>21.03</td><td>V</td><td>3.8</td><td>-0.4</td><td>16.81</td><td>38.5</td><td>-21.7</td><td></td><td></td></tr> <tr><td>824.20</td><td>29.76</td><td>H</td><td>3.8</td><td>0.4</td><td>26.33</td><td>38.5</td><td>-12.2</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>836.80</td><td>24.08</td><td>V</td><td>3.9</td><td>-0.5</td><td>19.67</td><td>38.5</td><td>-18.8</td><td></td><td></td></tr> <tr><td>836.80</td><td>31.52</td><td>H</td><td>3.9</td><td>0.4</td><td>28.10</td><td>38.5</td><td>-18.4</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>848.80</td><td>23.39</td><td>V</td><td>3.9</td><td>-0.7</td><td>18.79</td><td>38.5</td><td>-19.7</td><td></td><td></td></tr> <tr><td>848.80</td><td>30.85</td><td>H</td><td>3.9</td><td>0.5</td><td>27.43</td><td>38.5</td><td>-11.1</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 824.20 | 21.03 | V | 3.8 | -0.4 | 16.81 | 38.5 | -21.7 | | | 824.20 | 29.76 | H | 3.8 | 0.4 | 26.33 | 38.5 | -12.2 | | | Mid Ch | | | | | | | | | | 836.80 | 24.08 | V | 3.9 | -0.5 | 19.67 | 38.5 | -18.8 | | | 836.80 | 31.52 | H | 3.9 | 0.4 | 28.10 | 38.5 | -18.4 | | | High Ch | | | | | | | | | | 848.80 | 23.39 | V | 3.9 | -0.7 | 18.79 | 38.5 | -19.7 | | | 848.80 | 30.85 | H | 3.9 | 0.5 | 27.43 | 38.5 | -11.1 | | | <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: EGPRS 850 MHz Fundamentals</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>824.20</td><td>23.21</td><td>V</td><td>3.8</td><td>-0.4</td><td>18.99</td><td>38.5</td><td>-19.5</td><td></td><td></td></tr> <tr><td>824.20</td><td>29.28</td><td>H</td><td>3.8</td><td>0.4</td><td>25.85</td><td>38.5</td><td>-12.7</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>836.80</td><td>24.13</td><td>V</td><td>3.9</td><td>-0.5</td><td>19.72</td><td>38.5</td><td>-18.8</td><td></td><td></td></tr> <tr><td>836.80</td><td>31.42</td><td>H</td><td>3.9</td><td>0.4</td><td>28.00</td><td>38.5</td><td>-10.5</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>848.80</td><td>23.01</td><td>V</td><td>3.9</td><td>-0.7</td><td>18.41</td><td>38.5</td><td>-20.1</td><td></td><td></td></tr> <tr><td>848.80</td><td>30.78</td><td>H</td><td>3.9</td><td>0.5</td><td>27.36</td><td>38.5</td><td>-11.1</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 824.20 | 23.21 | V | 3.8 | -0.4 | 18.99 | 38.5 | -19.5 | | | 824.20 | 29.28 | H | 3.8 | 0.4 | 25.85 | 38.5 | -12.7 | | | Mid Ch | | | | | | | | | | 836.80 | 24.13 | V | 3.9 | -0.5 | 19.72 | 38.5 | -18.8 | | | 836.80 | 31.42 | H | 3.9 | 0.4 | 28.00 | 38.5 | -10.5 | | | High Ch | | | | | | | | | | 848.80 | 23.01 | V | 3.9 | -0.7 | 18.41 | 38.5 | -20.1 | | | 848.80 | 30.78 | H | 3.9 | 0.5 | 27.36 | 38.5 | -11.1 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.20 | 21.03 | V | 3.8 | -0.4 | 16.81 | 38.5 | -21.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.20 | 29.76 | H | 3.8 | 0.4 | 26.33 | 38.5 | -12.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.80 | 24.08 | V | 3.9 | -0.5 | 19.67 | 38.5 | -18.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.80 | 31.52 | H | 3.9 | 0.4 | 28.10 | 38.5 | -18.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.80 | 23.39 | V | 3.9 | -0.7 | 18.79 | 38.5 | -19.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.80 | 30.85 | H | 3.9 | 0.5 | 27.43 | 38.5 | -11.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.20 | 23.21 | V | 3.8 | -0.4 | 18.99 | 38.5 | -19.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.20 | 29.28 | H | 3.8 | 0.4 | 25.85 | 38.5 | -12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.80 | 24.13 | V | 3.9 | -0.5 | 19.72 | 38.5 | -18.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.80 | 31.42 | H | 3.9 | 0.4 | 28.00 | 38.5 | -10.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.80 | 23.01 | V | 3.9 | -0.7 | 18.41 | 38.5 | -20.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.80 | 30.78 | H | 3.9 | 0.5 | 27.36 | 38.5 | -11.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">GPRS 1900</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 9/28/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-A Mode: GPRS 1900 MHz Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1850.20</td><td>25.79</td><td>V</td><td>6.6</td><td>4.9</td><td>24.12</td><td>33.0</td><td>-8.9</td><td></td><td></td></tr> <tr><td>1850.20</td><td>21.49</td><td>H</td><td>6.6</td><td>4.9</td><td>19.82</td><td>33.0</td><td>-13.2</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>25.04</td><td>V</td><td>6.7</td><td>4.9</td><td>23.27</td><td>33.0</td><td>-9.7</td><td></td><td></td></tr> <tr><td>1880.00</td><td>22.97</td><td>H</td><td>6.7</td><td>4.9</td><td>21.20</td><td>33.0</td><td>-11.8</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1909.80</td><td>25.15</td><td>V</td><td>6.7</td><td>5.0</td><td>23.44</td><td>33.0</td><td>-9.6</td><td></td><td></td></tr> <tr><td>1909.80</td><td>22.11</td><td>H</td><td>6.7</td><td>5.0</td><td>20.40</td><td>33.0</td><td>-12.6</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1850.20 | 25.79 | V | 6.6 | 4.9 | 24.12 | 33.0 | -8.9 | | | 1850.20 | 21.49 | H | 6.6 | 4.9 | 19.82 | 33.0 | -13.2 | | | Mid Ch | | | | | | | | | | 1880.00 | 25.04 | V | 6.7 | 4.9 | 23.27 | 33.0 | -9.7 | | | 1880.00 | 22.97 | H | 6.7 | 4.9 | 21.20 | 33.0 | -11.8 | | | High Ch | | | | | | | | | | 1909.80 | 25.15 | V | 6.7 | 5.0 | 23.44 | 33.0 | -9.6 | | | 1909.80 | 22.11 | H | 6.7 | 5.0 | 20.40 | 33.0 | -12.6 | | | <p align="center">EGPRS 1900</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 9/28/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-A Mode: EGPRS 1900 MHz Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1850.20</td><td>24.84</td><td>V</td><td>6.6</td><td>4.9</td><td>23.17</td><td>33.0</td><td>-9.8</td><td></td><td></td></tr> <tr><td>1850.20</td><td>21.34</td><td>H</td><td>6.6</td><td>4.9</td><td>19.67</td><td>33.0</td><td>-13.3</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>25.33</td><td>V</td><td>6.7</td><td>4.9</td><td>23.56</td><td>33.0</td><td>-9.4</td><td></td><td></td></tr> <tr><td>1880.00</td><td>23.13</td><td>H</td><td>6.7</td><td>4.9</td><td>21.36</td><td>33.0</td><td>-11.6</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1909.80</td><td>25.01</td><td>V</td><td>6.7</td><td>5.0</td><td>23.30</td><td>33.0</td><td>-9.7</td><td></td><td></td></tr> <tr><td>1909.80</td><td>21.97</td><td>H</td><td>6.7</td><td>5.0</td><td>20.26</td><td>33.0</td><td>-12.7</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1850.20 | 24.84 | V | 6.6 | 4.9 | 23.17 | 33.0 | -9.8 | | | 1850.20 | 21.34 | H | 6.6 | 4.9 | 19.67 | 33.0 | -13.3 | | | Mid Ch | | | | | | | | | | 1880.00 | 25.33 | V | 6.7 | 4.9 | 23.56 | 33.0 | -9.4 | | | 1880.00 | 23.13 | H | 6.7 | 4.9 | 21.36 | 33.0 | -11.6 | | | High Ch | | | | | | | | | | 1909.80 | 25.01 | V | 6.7 | 5.0 | 23.30 | 33.0 | -9.7 | | | 1909.80 | 21.97 | H | 6.7 | 5.0 | 20.26 | 33.0 | -12.7 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1850.20 | 25.79 | V | 6.6 | 4.9 | 24.12 | 33.0 | -8.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1850.20 | 21.49 | H | 6.6 | 4.9 | 19.82 | 33.0 | -13.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 25.04 | V | 6.7 | 4.9 | 23.27 | 33.0 | -9.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 22.97 | H | 6.7 | 4.9 | 21.20 | 33.0 | -11.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1909.80 | 25.15 | V | 6.7 | 5.0 | 23.44 | 33.0 | -9.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1909.80 | 22.11 | H | 6.7 | 5.0 | 20.40 | 33.0 | -12.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1850.20 | 24.84 | V | 6.6 | 4.9 | 23.17 | 33.0 | -9.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1850.20 | 21.34 | H | 6.6 | 4.9 | 19.67 | 33.0 | -13.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 25.33 | V | 6.7 | 4.9 | 23.56 | 33.0 | -9.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 23.13 | H | 6.7 | 4.9 | 21.36 | 33.0 | -11.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1909.80 | 25.01 | V | 6.7 | 5.0 | 23.30 | 33.0 | -9.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1909.80 | 21.97 | H | 6.7 | 5.0 | 20.26 | 33.0 | -12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

10.1.2. WCDMA

| B2 REL99 | | | | | | | | | | B2 HSDPA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|----------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|------|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|
| <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: 27700 JR Project #: 14938215 (SM-A256E_DSN) Date: 9/28/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-A Mode: Rel99 Band 2 Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>1852.40</td><td>18.58</td><td>V</td><td>6.6</td><td>4.9</td><td>16.90</td><td>33.0</td><td>-16.1</td><td></td><td></td></tr> <tr><td>1852.40</td><td>15.45</td><td>H</td><td>6.6</td><td>4.9</td><td>13.77</td><td>33.0</td><td>-19.2</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>1880.00</td><td>17.54</td><td>V</td><td>6.7</td><td>4.9</td><td>15.77</td><td>33.0</td><td>-17.2</td><td></td><td></td></tr> <tr><td>1880.00</td><td>13.91</td><td>H</td><td>6.7</td><td>4.9</td><td>12.14</td><td>33.0</td><td>-20.9</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>1907.60</td><td>15.30</td><td>V</td><td>6.7</td><td>5.0</td><td>13.58</td><td>33.0</td><td>-19.4</td><td></td><td></td></tr> <tr><td>1907.60</td><td>12.22</td><td>H</td><td>6.7</td><td>5.0</td><td>10.50</td><td>33.0</td><td>-22.5</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1852.40 | 18.58 | V | 6.6 | 4.9 | 16.90 | 33.0 | -16.1 | | | 1852.40 | 15.45 | H | 6.6 | 4.9 | 13.77 | 33.0 | -19.2 | | | Mid Ch | | | | | | | | | | 1880.00 | 17.54 | V | 6.7 | 4.9 | 15.77 | 33.0 | -17.2 | | | 1880.00 | 13.91 | H | 6.7 | 4.9 | 12.14 | 33.0 | -20.9 | | | High Ch | | | | | | | | | | 1907.60 | 15.30 | V | 6.7 | 5.0 | 13.58 | 33.0 | -19.4 | | | 1907.60 | 12.22 | H | 6.7 | 5.0 | 10.50 | 33.0 | -22.5 | | | <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/2/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: HSDPA Band 2 Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>1852.40</td><td>15.88</td><td>V</td><td>6.6</td><td>4.9</td><td>14.20</td><td>33.0</td><td>18.8</td><td></td><td></td></tr> <tr><td>1852.40</td><td>9.14</td><td>H</td><td>6.6</td><td>4.9</td><td>7.46</td><td>33.0</td><td>-25.5</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>1880.00</td><td>12.27</td><td>V</td><td>6.7</td><td>4.9</td><td>10.50</td><td>33.0</td><td>-22.5</td><td></td><td></td></tr> <tr><td>1880.00</td><td>11.94</td><td>H</td><td>6.7</td><td>4.9</td><td>10.17</td><td>33.0</td><td>-22.8</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>1907.60</td><td>14.13</td><td>V</td><td>6.7</td><td>5.0</td><td>12.41</td><td>33.0</td><td>-20.6</td><td></td><td></td></tr> <tr><td>1907.60</td><td>5.24</td><td>H</td><td>6.7</td><td>5.0</td><td>3.52</td><td>33.0</td><td>-29.5</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1852.40 | 15.88 | V | 6.6 | 4.9 | 14.20 | 33.0 | 18.8 | | | 1852.40 | 9.14 | H | 6.6 | 4.9 | 7.46 | 33.0 | -25.5 | | | Mid Ch | | | | | | | | | | 1880.00 | 12.27 | V | 6.7 | 4.9 | 10.50 | 33.0 | -22.5 | | | 1880.00 | 11.94 | H | 6.7 | 4.9 | 10.17 | 33.0 | -22.8 | | | High Ch | | | | | | | | | | 1907.60 | 14.13 | V | 6.7 | 5.0 | 12.41 | 33.0 | -20.6 | | | 1907.60 | 5.24 | H | 6.7 | 5.0 | 3.52 | 33.0 | -29.5 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1852.40 | 18.58 | V | 6.6 | 4.9 | 16.90 | 33.0 | -16.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1852.40 | 15.45 | H | 6.6 | 4.9 | 13.77 | 33.0 | -19.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 17.54 | V | 6.7 | 4.9 | 15.77 | 33.0 | -17.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 13.91 | H | 6.7 | 4.9 | 12.14 | 33.0 | -20.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1907.60 | 15.30 | V | 6.7 | 5.0 | 13.58 | 33.0 | -19.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1907.60 | 12.22 | H | 6.7 | 5.0 | 10.50 | 33.0 | -22.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1852.40 | 15.88 | V | 6.6 | 4.9 | 14.20 | 33.0 | 18.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1852.40 | 9.14 | H | 6.6 | 4.9 | 7.46 | 33.0 | -25.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 12.27 | V | 6.7 | 4.9 | 10.50 | 33.0 | -22.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 11.94 | H | 6.7 | 4.9 | 10.17 | 33.0 | -22.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1907.60 | 14.13 | V | 6.7 | 5.0 | 12.41 | 33.0 | -20.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1907.60 | 5.24 | H | 6.7 | 5.0 | 3.52 | 33.0 | -29.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">B5 REL99</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: Rel99 Band 5 Fundamentals</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>826.40</td><td>12.23</td><td>V</td><td>3.8</td><td>-0.4</td><td>7.97</td><td>38.5</td><td>-30.5</td><td></td><td></td></tr> <tr><td>826.40</td><td>17.99</td><td>H</td><td>3.8</td><td>0.4</td><td>14.16</td><td>38.5</td><td>-24.3</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.60</td><td>15.24</td><td>V</td><td>3.9</td><td>-0.5</td><td>10.83</td><td>38.5</td><td>-27.7</td><td></td><td></td></tr> <tr><td>836.60</td><td>20.56</td><td>H</td><td>3.9</td><td>0.4</td><td>17.14</td><td>38.5</td><td>-21.4</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>846.60</td><td>13.76</td><td>V</td><td>3.9</td><td>-0.7</td><td>9.19</td><td>38.5</td><td>-29.3</td><td></td><td></td></tr> <tr><td>846.60</td><td>20.75</td><td>H</td><td>3.9</td><td>0.5</td><td>17.33</td><td>38.5</td><td>-21.2</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 826.40 | 12.23 | V | 3.8 | -0.4 | 7.97 | 38.5 | -30.5 | | | 826.40 | 17.99 | H | 3.8 | 0.4 | 14.16 | 38.5 | -24.3 | | | Mid Ch | | | | | | | | | | 836.60 | 15.24 | V | 3.9 | -0.5 | 10.83 | 38.5 | -27.7 | | | 836.60 | 20.56 | H | 3.9 | 0.4 | 17.14 | 38.5 | -21.4 | | | High Ch | | | | | | | | | | 846.60 | 13.76 | V | 3.9 | -0.7 | 9.19 | 38.5 | -29.3 | | | 846.60 | 20.75 | H | 3.9 | 0.5 | 17.33 | 38.5 | -21.2 | | | <p align="center">B5 HSDPA</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: HSDPA Band 5 Fundamentals</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>826.40</td><td>11.56</td><td>V</td><td>3.8</td><td>-0.4</td><td>7.30</td><td>38.5</td><td>-31.2</td><td></td><td></td></tr> <tr><td>826.40</td><td>17.19</td><td>H</td><td>3.8</td><td>0.4</td><td>13.76</td><td>38.5</td><td>-24.7</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.60</td><td>15.04</td><td>V</td><td>3.9</td><td>-0.5</td><td>10.63</td><td>38.5</td><td>-27.9</td><td></td><td></td></tr> <tr><td>836.60</td><td>17.53</td><td>H</td><td>3.9</td><td>0.4</td><td>14.11</td><td>38.5</td><td>-24.4</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>846.60</td><td>10.52</td><td>V</td><td>3.9</td><td>-0.7</td><td>5.95</td><td>38.5</td><td>-32.5</td><td></td><td></td></tr> <tr><td>846.60</td><td>18.10</td><td>H</td><td>3.9</td><td>0.5</td><td>14.68</td><td>38.5</td><td>-23.8</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 826.40 | 11.56 | V | 3.8 | -0.4 | 7.30 | 38.5 | -31.2 | | | 826.40 | 17.19 | H | 3.8 | 0.4 | 13.76 | 38.5 | -24.7 | | | Mid Ch | | | | | | | | | | 836.60 | 15.04 | V | 3.9 | -0.5 | 10.63 | 38.5 | -27.9 | | | 836.60 | 17.53 | H | 3.9 | 0.4 | 14.11 | 38.5 | -24.4 | | | High Ch | | | | | | | | | | 846.60 | 10.52 | V | 3.9 | -0.7 | 5.95 | 38.5 | -32.5 | | | 846.60 | 18.10 | H | 3.9 | 0.5 | 14.68 | 38.5 | -23.8 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.40 | 12.23 | V | 3.8 | -0.4 | 7.97 | 38.5 | -30.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.40 | 17.99 | H | 3.8 | 0.4 | 14.16 | 38.5 | -24.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.60 | 15.24 | V | 3.9 | -0.5 | 10.83 | 38.5 | -27.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.60 | 20.56 | H | 3.9 | 0.4 | 17.14 | 38.5 | -21.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.60 | 13.76 | V | 3.9 | -0.7 | 9.19 | 38.5 | -29.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.60 | 20.75 | H | 3.9 | 0.5 | 17.33 | 38.5 | -21.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.40 | 11.56 | V | 3.8 | -0.4 | 7.30 | 38.5 | -31.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.40 | 17.19 | H | 3.8 | 0.4 | 13.76 | 38.5 | -24.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.60 | 15.04 | V | 3.9 | -0.5 | 10.63 | 38.5 | -27.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.60 | 17.53 | H | 3.9 | 0.4 | 14.11 | 38.5 | -24.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.60 | 10.52 | V | 3.9 | -0.7 | 5.95 | 38.5 | -32.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.60 | 18.10 | H | 3.9 | 0.5 | 14.68 | 38.5 | -23.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">B4 REL99</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 9/29/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-A Mode: Rel99 Band 4 Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>1712.40</td><td>16.12</td><td>V</td><td>6.3</td><td>5.6</td><td>15.45</td><td>30.0</td><td>-14.6</td><td></td><td></td></tr> <tr><td>1712.40</td><td>7.53</td><td>H</td><td>6.3</td><td>5.6</td><td>6.86</td><td>30.0</td><td>-23.1</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>1732.60</td><td>17.55</td><td>V</td><td>6.3</td><td>5.4</td><td>16.66</td><td>30.0</td><td>-13.3</td><td></td><td></td></tr> <tr><td>1732.60</td><td>11.88</td><td>H</td><td>6.3</td><td>5.4</td><td>10.99</td><td>30.0</td><td>-19.0</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>1752.60</td><td>18.16</td><td>V</td><td>6.3</td><td>5.2</td><td>17.07</td><td>30.0</td><td>-12.9</td><td></td><td></td></tr> <tr><td>1752.60</td><td>10.80</td><td>H</td><td>6.3</td><td>5.2</td><td>9.71</td><td>30.0</td><td>-20.3</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1712.40 | 16.12 | V | 6.3 | 5.6 | 15.45 | 30.0 | -14.6 | | | 1712.40 | 7.53 | H | 6.3 | 5.6 | 6.86 | 30.0 | -23.1 | | | Mid Ch | | | | | | | | | | 1732.60 | 17.55 | V | 6.3 | 5.4 | 16.66 | 30.0 | -13.3 | | | 1732.60 | 11.88 | H | 6.3 | 5.4 | 10.99 | 30.0 | -19.0 | | | High Ch | | | | | | | | | | 1752.60 | 18.16 | V | 6.3 | 5.2 | 17.07 | 30.0 | -12.9 | | | 1752.60 | 10.80 | H | 6.3 | 5.2 | 9.71 | 30.0 | -20.3 | | | <p align="center">B4 HSDPA</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 9/29/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: HSDPA Band 4 Fundamentals</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>1712.40</td><td>16.02</td><td>V</td><td>6.3</td><td>5.6</td><td>15.35</td><td>30.0</td><td>-14.7</td><td></td><td></td></tr> <tr><td>1712.40</td><td>11.33</td><td>H</td><td>6.3</td><td>5.6</td><td>10.66</td><td>30.0</td><td>-19.3</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>1732.60</td><td>17.30</td><td>V</td><td>6.3</td><td>5.4</td><td>16.41</td><td>30.0</td><td>-13.6</td><td></td><td></td></tr> <tr><td>1732.60</td><td>11.53</td><td>H</td><td>6.3</td><td>5.4</td><td>10.64</td><td>30.0</td><td>-19.4</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>1752.60</td><td>13.33</td><td>V</td><td>6.3</td><td>5.2</td><td>12.24</td><td>30.0</td><td>-17.8</td><td></td><td></td></tr> <tr><td>1752.60</td><td>7.46</td><td>H</td><td>6.3</td><td>5.2</td><td>6.37</td><td>30.0</td><td>-23.6</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1712.40 | 16.02 | V | 6.3 | 5.6 | 15.35 | 30.0 | -14.7 | | | 1712.40 | 11.33 | H | 6.3 | 5.6 | 10.66 | 30.0 | -19.3 | | | Mid Ch | | | | | | | | | | 1732.60 | 17.30 | V | 6.3 | 5.4 | 16.41 | 30.0 | -13.6 | | | 1732.60 | 11.53 | H | 6.3 | 5.4 | 10.64 | 30.0 | -19.4 | | | High Ch | | | | | | | | | | 1752.60 | 13.33 | V | 6.3 | 5.2 | 12.24 | 30.0 | -17.8 | | | 1752.60 | 7.46 | H | 6.3 | 5.2 | 6.37 | 30.0 | -23.6 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1712.40 | 16.12 | V | 6.3 | 5.6 | 15.45 | 30.0 | -14.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1712.40 | 7.53 | H | 6.3 | 5.6 | 6.86 | 30.0 | -23.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1732.60 | 17.55 | V | 6.3 | 5.4 | 16.66 | 30.0 | -13.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1732.60 | 11.88 | H | 6.3 | 5.4 | 10.99 | 30.0 | -19.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1752.60 | 18.16 | V | 6.3 | 5.2 | 17.07 | 30.0 | -12.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1752.60 | 10.80 | H | 6.3 | 5.2 | 9.71 | 30.0 | -20.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1712.40 | 16.02 | V | 6.3 | 5.6 | 15.35 | 30.0 | -14.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1712.40 | 11.33 | H | 6.3 | 5.6 | 10.66 | 30.0 | -19.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1732.60 | 17.30 | V | 6.3 | 5.4 | 16.41 | 30.0 | -13.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1732.60 | 11.53 | H | 6.3 | 5.4 | 10.64 | 30.0 | -19.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1752.60 | 13.33 | V | 6.3 | 5.2 | 12.24 | 30.0 | -17.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1752.60 | 7.46 | H | 6.3 | 5.2 | 6.37 | 30.0 | -23.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| B2 REL99 | | | | | | | | | | B2 HSDPA | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|---|-------------|------------|-------|--|--|------------------|-----------------|-----------------|--------------------|---|-------------|------------|-------|--|
| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | |
| Company: 27700 JR | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | | Company: Lions | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | |
| Date: 9/29/2023 | | | | | Test Engineer: 27700 JR | | | | | Date: 10/2/2023 | | | | | Test Engineer: 32595 RT | | | | |
| Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | | Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | |
| Mode: Rel99 Band 2 Fundamentals | | | | | Mode: Rel99 Band 2 Fundamentals | | | | | Mode: HSDPA Band 2 Fundamentals | | | | | Mode: HSDPA Band 2 Fundamentals | | | | |
| Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | | Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 1852.40 | 16.73 | V | 6.6 | 4.9 | 15.05 | 33.0 | -17.9 | | | 1852.40 | 17.73 | V | 6.6 | 4.9 | 16.05 | 33.0 | -16.9 | | |
| 1852.40 | 9.34 | H | 6.6 | 4.9 | 7.66 | 33.0 | -25.3 | | | 1852.40 | 15.25 | H | 6.6 | 4.9 | 13.57 | 33.0 | -19.4 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 1880.00 | 12.81 | V | 6.7 | 4.9 | 11.04 | 33.0 | -22.0 | | | 1880.00 | 17.00 | V | 6.7 | 4.9 | 15.23 | 33.0 | -17.8 | | |
| 1880.00 | 11.99 | H | 6.7 | 4.9 | 10.22 | 33.0 | -22.8 | | | 1880.00 | 13.86 | H | 6.7 | 4.9 | 12.09 | 33.0 | -20.9 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 1907.60 | 13.42 | V | 6.7 | 5.0 | 11.70 | 33.0 | -21.3 | | | 1907.60 | 16.01 | V | 6.7 | 5.0 | 14.29 | 33.0 | -18.7 | | |
| 1907.60 | 5.97 | H | 6.7 | 5.0 | 4.25 | 33.0 | -28.7 | | | 1907.60 | 11.49 | H | 6.7 | 5.0 | 9.77 | 33.0 | -23.2 | | |
| B5 REL99 | | | | | | | | | | B5 HSDPA | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | |
| Company: Lions | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | | Company: Lions | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | |
| Date: 10/3/2023 | | | | | Test Engineer: 32595 RT | | | | | Date: 10/3/2023 | | | | | Test Engineer: 32595 RT | | | | |
| Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | | Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | |
| Mode: Rel99 Band 5 Fundamentals | | | | | Mode: Rel99 Band 5 Fundamentals | | | | | Mode: HSDPA Band 5 Fundamentals | | | | | Mode: HSDPA Band 5 Fundamentals | | | | |
| Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables | | | | | | | | | | Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 826.40 | 9.62 | V | 3.8 | -0.4 | 5.36 | 38.5 | -33.1 | | | 826.40 | 12.06 | V | 3.8 | -0.4 | 7.80 | 38.5 | -30.7 | | |
| 826.40 | 15.73 | H | 3.8 | 0.4 | 12.30 | 38.5 | -26.2 | | | 826.40 | 18.15 | H | 3.8 | 0.4 | 14.72 | 38.5 | -23.8 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 836.60 | 14.59 | V | 3.9 | -0.5 | 10.18 | 38.5 | -28.3 | | | 836.60 | 15.04 | V | 3.9 | -0.5 | 10.63 | 38.5 | -27.9 | | |
| 836.60 | 20.56 | H | 3.9 | 0.4 | 17.14 | 38.5 | -21.4 | | | 836.60 | 17.53 | H | 3.9 | 0.4 | 14.11 | 38.5 | -24.4 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 846.60 | 2.15 | V | 3.9 | -0.7 | -2.42 | 38.5 | -40.9 | | | 846.60 | -0.32 | V | 3.9 | -0.7 | -4.89 | 38.5 | -43.4 | | |
| 846.60 | 9.57 | H | 3.9 | 0.5 | 6.15 | 38.5 | -32.4 | | | 846.60 | 10.09 | H | 3.9 | 0.5 | 6.67 | 38.5 | -31.8 | | |
| B4 REL99 | | | | | | | | | | B4 HSDPA | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | |
| Company: Lions | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | | Company: Lions | | | | | Project #: 14938215 (SM-A256E_DSN) | | | | |
| Date: 9/29/2023 | | | | | Test Engineer: 27700 JR | | | | | Date: 9/29/2023 | | | | | Test Engineer: 32595 RT | | | | |
| Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | | Configuration: EUT Only | | | | | Location: 03-RDE-A | | | | |
| Mode: Rel99 Band 4 Fundamentals | | | | | Mode: Rel99 Band 4 Fundamentals | | | | | Mode: HSDPA Band 4 Fundamentals | | | | | Mode: HSDPA Band 4 Fundamentals | | | | |
| Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | | Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 1712.40 | 15.70 | V | 6.3 | 5.6 | 15.03 | 30.0 | -15.0 | | | 1712.40 | 16.37 | V | 6.3 | 5.6 | 15.70 | 30.0 | -14.3 | | |
| 1712.40 | 7.53 | H | 6.3 | 5.6 | 6.86 | 30.0 | -23.1 | | | 1712.40 | 11.33 | H | 6.3 | 5.6 | 10.66 | 30.0 | -19.3 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 1732.60 | 17.55 | V | 6.3 | 5.4 | 16.66 | 30.0 | -13.3 | | | 1732.60 | 17.30 | V | 6.3 | 5.4 | 16.41 | 30.0 | -13.6 | | |
| 1732.60 | 8.13 | H | 6.3 | 5.4 | 7.24 | 30.0 | -22.8 | | | 1732.60 | 11.53 | H | 6.3 | 5.4 | 10.64 | 30.0 | -19.4 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 1752.60 | 18.16 | V | 6.3 | 5.2 | 17.07 | 30.0 | -12.9 | | | 1752.60 | 13.33 | V | 6.3 | 5.2 | 12.24 | 30.0 | -17.8 | | |
| 1752.60 | 11.63 | H | 6.3 | 5.2 | 10.56 | 30.0 | -19.4 | | | 1752.60 | 7.46 | H | 6.3 | 5.2 | 6.37 | 30.0 | -23.6 | | |

10.1.3. LTE Band 2

| 20MHz QPSK | | | | | | | | | 20MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|-------------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|------|--|---------|-------|---|-----|-----|-------|------|-------|--|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|------|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|---|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|------|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|
| <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 123456789 Date: 9/27/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: Chamber A Mode: LTE_QPSK Band 2 Fundamentals, 20MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn T136, and Chamber A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1860.00</td><td>24.81</td><td>V</td><td>6.6</td><td>4.9</td><td>23.10</td><td>33.0</td><td>-9.9</td><td></td></tr> <tr><td>1860.00</td><td>22.60</td><td>H</td><td>6.6</td><td>4.9</td><td>20.89</td><td>33.0</td><td>-12.1</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>25.24</td><td>V</td><td>6.7</td><td>4.9</td><td>23.47</td><td>33.0</td><td>-9.5</td><td></td></tr> <tr><td>1880.00</td><td>21.64</td><td>H</td><td>6.7</td><td>4.9</td><td>19.87</td><td>33.0</td><td>-13.1</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1900.00</td><td>22.55</td><td>V</td><td>6.7</td><td>4.9</td><td>20.81</td><td>33.0</td><td>-12.2</td><td></td></tr> <tr><td>1900.00</td><td>22.22</td><td>H</td><td>6.7</td><td>4.9</td><td>20.48</td><td>33.0</td><td>-12.5</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1860.00 | 24.81 | V | 6.6 | 4.9 | 23.10 | 33.0 | -9.9 | | 1860.00 | 22.60 | H | 6.6 | 4.9 | 20.89 | 33.0 | -12.1 | | Mid Ch | | | | | | | | | 1880.00 | 25.24 | V | 6.7 | 4.9 | 23.47 | 33.0 | -9.5 | | 1880.00 | 21.64 | H | 6.7 | 4.9 | 19.87 | 33.0 | -13.1 | | High Ch | | | | | | | | | 1900.00 | 22.55 | V | 6.7 | 4.9 | 20.81 | 33.0 | -12.2 | | 1900.00 | 22.22 | H | 6.7 | 4.9 | 20.48 | 33.0 | -12.5 | | <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 12345 Date: 9/28/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1860.00</td><td>24.65</td><td>V</td><td>6.6</td><td>4.9</td><td>22.94</td><td>33.0</td><td>-10.1</td><td></td></tr> <tr><td>1860.00</td><td>22.20</td><td>H</td><td>6.6</td><td>4.9</td><td>20.49</td><td>33.0</td><td>-12.5</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>25.01</td><td>V</td><td>6.7</td><td>4.9</td><td>23.24</td><td>33.0</td><td>-9.8</td><td></td></tr> <tr><td>1880.00</td><td>21.14</td><td>H</td><td>6.7</td><td>4.9</td><td>19.37</td><td>33.0</td><td>-13.6</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1900.00</td><td>22.20</td><td>V</td><td>6.7</td><td>4.9</td><td>20.46</td><td>33.0</td><td>-12.5</td><td></td></tr> <tr><td>1900.00</td><td>21.67</td><td>H</td><td>6.7</td><td>4.9</td><td>19.93</td><td>33.0</td><td>-13.1</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1860.00 | 24.65 | V | 6.6 | 4.9 | 22.94 | 33.0 | -10.1 | | 1860.00 | 22.20 | H | 6.6 | 4.9 | 20.49 | 33.0 | -12.5 | | Mid Ch | | | | | | | | | 1880.00 | 25.01 | V | 6.7 | 4.9 | 23.24 | 33.0 | -9.8 | | 1880.00 | 21.14 | H | 6.7 | 4.9 | 19.37 | 33.0 | -13.6 | | High Ch | | | | | | | | | 1900.00 | 22.20 | V | 6.7 | 4.9 | 20.46 | 33.0 | -12.5 | | 1900.00 | 21.67 | H | 6.7 | 4.9 | 19.93 | 33.0 | -13.1 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860.00 | 24.81 | V | 6.6 | 4.9 | 23.10 | 33.0 | -9.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860.00 | 22.60 | H | 6.6 | 4.9 | 20.89 | 33.0 | -12.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 25.24 | V | 6.7 | 4.9 | 23.47 | 33.0 | -9.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 21.64 | H | 6.7 | 4.9 | 19.87 | 33.0 | -13.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1900.00 | 22.55 | V | 6.7 | 4.9 | 20.81 | 33.0 | -12.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1900.00 | 22.22 | H | 6.7 | 4.9 | 20.48 | 33.0 | -12.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860.00 | 24.65 | V | 6.6 | 4.9 | 22.94 | 33.0 | -10.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1860.00 | 22.20 | H | 6.6 | 4.9 | 20.49 | 33.0 | -12.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 25.01 | V | 6.7 | 4.9 | 23.24 | 33.0 | -9.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 21.14 | H | 6.7 | 4.9 | 19.37 | 33.0 | -13.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1900.00 | 22.20 | V | 6.7 | 4.9 | 20.46 | 33.0 | -12.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1900.00 | 21.67 | H | 6.7 | 4.9 | 19.93 | 33.0 | -13.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">15MHz QPSK</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 12345 Date: 9/28/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 2 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1857.50</td><td>26.70</td><td>V</td><td>6.6</td><td>4.9</td><td>25.00</td><td>33.0</td><td>-8.0</td><td></td></tr> <tr><td>1857.50</td><td>23.89</td><td>H</td><td>6.6</td><td>4.9</td><td>22.19</td><td>33.0</td><td>-10.8</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>27.34</td><td>V</td><td>6.7</td><td>4.9</td><td>25.57</td><td>33.0</td><td>-7.4</td><td></td></tr> <tr><td>1880.00</td><td>23.35</td><td>H</td><td>6.7</td><td>4.9</td><td>21.58</td><td>33.0</td><td>-11.4</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1902.50</td><td>26.60</td><td>V</td><td>6.7</td><td>4.9</td><td>24.87</td><td>33.0</td><td>-8.1</td><td></td></tr> <tr><td>1902.50</td><td>23.32</td><td>H</td><td>6.7</td><td>4.9</td><td>21.59</td><td>33.0</td><td>-11.4</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1857.50 | 26.70 | V | 6.6 | 4.9 | 25.00 | 33.0 | -8.0 | | 1857.50 | 23.89 | H | 6.6 | 4.9 | 22.19 | 33.0 | -10.8 | | Mid Ch | | | | | | | | | 1880.00 | 27.34 | V | 6.7 | 4.9 | 25.57 | 33.0 | -7.4 | | 1880.00 | 23.35 | H | 6.7 | 4.9 | 21.58 | 33.0 | -11.4 | | High Ch | | | | | | | | | 1902.50 | 26.60 | V | 6.7 | 4.9 | 24.87 | 33.0 | -8.1 | | 1902.50 | 23.32 | H | 6.7 | 4.9 | 21.59 | 33.0 | -11.4 | | <p align="center">15MHz 16QAM</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 12345 Date: 9/28/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 2 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1857.50</td><td>26.38</td><td>V</td><td>6.6</td><td>4.9</td><td>24.68</td><td>33.0</td><td>-8.3</td><td></td></tr> <tr><td>1857.50</td><td>23.10</td><td>H</td><td>6.6</td><td>4.9</td><td>21.40</td><td>33.0</td><td>-11.6</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>26.33</td><td>V</td><td>6.7</td><td>4.9</td><td>24.56</td><td>33.0</td><td>-8.4</td><td></td></tr> <tr><td>1880.00</td><td>23.05</td><td>H</td><td>6.7</td><td>4.9</td><td>21.28</td><td>33.0</td><td>-11.7</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1902.50</td><td>25.92</td><td>V</td><td>6.7</td><td>4.9</td><td>24.19</td><td>33.0</td><td>-8.8</td><td></td></tr> <tr><td>1902.50</td><td>23.73</td><td>H</td><td>6.7</td><td>4.9</td><td>22.00</td><td>33.0</td><td>-11.0</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1857.50 | 26.38 | V | 6.6 | 4.9 | 24.68 | 33.0 | -8.3 | | 1857.50 | 23.10 | H | 6.6 | 4.9 | 21.40 | 33.0 | -11.6 | | Mid Ch | | | | | | | | | 1880.00 | 26.33 | V | 6.7 | 4.9 | 24.56 | 33.0 | -8.4 | | 1880.00 | 23.05 | H | 6.7 | 4.9 | 21.28 | 33.0 | -11.7 | | High Ch | | | | | | | | | 1902.50 | 25.92 | V | 6.7 | 4.9 | 24.19 | 33.0 | -8.8 | | 1902.50 | 23.73 | H | 6.7 | 4.9 | 22.00 | 33.0 | -11.0 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1857.50 | 26.70 | V | 6.6 | 4.9 | 25.00 | 33.0 | -8.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1857.50 | 23.89 | H | 6.6 | 4.9 | 22.19 | 33.0 | -10.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 27.34 | V | 6.7 | 4.9 | 25.57 | 33.0 | -7.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 23.35 | H | 6.7 | 4.9 | 21.58 | 33.0 | -11.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1902.50 | 26.60 | V | 6.7 | 4.9 | 24.87 | 33.0 | -8.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1902.50 | 23.32 | H | 6.7 | 4.9 | 21.59 | 33.0 | -11.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1857.50 | 26.38 | V | 6.6 | 4.9 | 24.68 | 33.0 | -8.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1857.50 | 23.10 | H | 6.6 | 4.9 | 21.40 | 33.0 | -11.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 26.33 | V | 6.7 | 4.9 | 24.56 | 33.0 | -8.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 23.05 | H | 6.7 | 4.9 | 21.28 | 33.0 | -11.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1902.50 | 25.92 | V | 6.7 | 4.9 | 24.19 | 33.0 | -8.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1902.50 | 23.73 | H | 6.7 | 4.9 | 22.00 | 33.0 | -11.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p align="center">10MHz QPSK</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 12345 Date: 9/28/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 2 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1855.00</td><td>24.88</td><td>V</td><td>6.6</td><td>4.9</td><td>23.19</td><td>33.0</td><td>-9.8</td><td></td></tr> <tr><td>1855.00</td><td>22.08</td><td>H</td><td>6.6</td><td>4.9</td><td>20.39</td><td>33.0</td><td>-12.6</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>25.24</td><td>V</td><td>6.7</td><td>4.9</td><td>23.47</td><td>33.0</td><td>-9.5</td><td></td></tr> <tr><td>1880.00</td><td>22.70</td><td>H</td><td>6.7</td><td>4.9</td><td>20.93</td><td>33.0</td><td>-12.1</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1905.00</td><td>24.25</td><td>V</td><td>6.7</td><td>5.0</td><td>22.52</td><td>33.0</td><td>-10.5</td><td></td></tr> <tr><td>1905.00</td><td>22.40</td><td>H</td><td>6.7</td><td>5.0</td><td>20.67</td><td>33.0</td><td>-12.3</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1855.00 | 24.88 | V | 6.6 | 4.9 | 23.19 | 33.0 | -9.8 | | 1855.00 | 22.08 | H | 6.6 | 4.9 | 20.39 | 33.0 | -12.6 | | Mid Ch | | | | | | | | | 1880.00 | 25.24 | V | 6.7 | 4.9 | 23.47 | 33.0 | -9.5 | | 1880.00 | 22.70 | H | 6.7 | 4.9 | 20.93 | 33.0 | -12.1 | | High Ch | | | | | | | | | 1905.00 | 24.25 | V | 6.7 | 5.0 | 22.52 | 33.0 | -10.5 | | 1905.00 | 22.40 | H | 6.7 | 5.0 | 20.67 | 33.0 | -12.3 | | <p align="center">10MHz 16QAM</p> <p align="center">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 12345 Date: 9/28/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 2 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1855.00</td><td>24.52</td><td>V</td><td>6.6</td><td>4.9</td><td>22.83</td><td>33.0</td><td>-10.2</td><td></td></tr> <tr><td>1855.00</td><td>21.97</td><td>H</td><td>6.6</td><td>4.9</td><td>20.28</td><td>33.0</td><td>-12.7</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1880.00</td><td>24.96</td><td>V</td><td>6.7</td><td>4.9</td><td>23.19</td><td>33.0</td><td>-9.8</td><td></td></tr> <tr><td>1880.00</td><td>22.16</td><td>H</td><td>6.7</td><td>4.9</td><td>20.39</td><td>33.0</td><td>-12.6</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1905.00</td><td>23.73</td><td>V</td><td>6.7</td><td>5.0</td><td>22.00</td><td>33.0</td><td>-11.0</td><td></td></tr> <tr><td>1905.00</td><td>21.11</td><td>H</td><td>6.7</td><td>5.0</td><td>19.38</td><td>33.0</td><td>-13.6</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 1855.00 | 24.52 | V | 6.6 | 4.9 | 22.83 | 33.0 | -10.2 | | 1855.00 | 21.97 | H | 6.6 | 4.9 | 20.28 | 33.0 | -12.7 | | Mid Ch | | | | | | | | | 1880.00 | 24.96 | V | 6.7 | 4.9 | 23.19 | 33.0 | -9.8 | | 1880.00 | 22.16 | H | 6.7 | 4.9 | 20.39 | 33.0 | -12.6 | | High Ch | | | | | | | | | 1905.00 | 23.73 | V | 6.7 | 5.0 | 22.00 | 33.0 | -11.0 | | 1905.00 | 21.11 | H | 6.7 | 5.0 | 19.38 | 33.0 | -13.6 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1855.00 | 24.88 | V | 6.6 | 4.9 | 23.19 | 33.0 | -9.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1855.00 | 22.08 | H | 6.6 | 4.9 | 20.39 | 33.0 | -12.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 25.24 | V | 6.7 | 4.9 | 23.47 | 33.0 | -9.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 22.70 | H | 6.7 | 4.9 | 20.93 | 33.0 | -12.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1905.00 | 24.25 | V | 6.7 | 5.0 | 22.52 | 33.0 | -10.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1905.00 | 22.40 | H | 6.7 | 5.0 | 20.67 | 33.0 | -12.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1855.00 | 24.52 | V | 6.6 | 4.9 | 22.83 | 33.0 | -10.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1855.00 | 21.97 | H | 6.6 | 4.9 | 20.28 | 33.0 | -12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 24.96 | V | 6.7 | 4.9 | 23.19 | 33.0 | -9.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1880.00 | 22.16 | H | 6.7 | 4.9 | 20.39 | 33.0 | -12.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1905.00 | 23.73 | V | 6.7 | 5.0 | 22.00 | 33.0 | -11.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1905.00 | 21.11 | H | 6.7 | 5.0 | 19.38 | 33.0 | -13.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

10.1.4. LTE Band 12

| 10MHz QPSK | | | | | | | | | | 10MHz 16QAM | | | | | | | | | | |
|---|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--|
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | | |
| 704.00 | 13.82 | V | 2.4 | 1.0 | 12.39 | 34.8 | -22.4 | | | 704.00 | 12.82 | V | 2.4 | 1.0 | 11.39 | 34.8 | -23.4 | | | |
| 704.00 | 21.65 | H | 2.4 | 1.5 | 20.69 | 34.8 | -14.1 | | | 704.00 | 19.93 | H | 2.4 | 1.5 | 18.97 | 34.8 | -15.8 | | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | | |
| 707.50 | 13.49 | V | 2.4 | 1.0 | 12.07 | 34.8 | -22.7 | | | 707.50 | 12.40 | V | 2.4 | 1.0 | 10.98 | 34.8 | -23.8 | | | |
| 707.50 | 21.09 | H | 2.4 | 1.4 | 20.11 | 34.8 | -14.7 | | | 707.50 | 20.01 | H | 2.4 | 1.4 | 19.03 | 34.8 | -15.8 | | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | | |
| 711.00 | 13.32 | V | 2.4 | 1.0 | 11.88 | 34.8 | -22.9 | | | 711.00 | 12.19 | V | 2.4 | 1.0 | 10.75 | 34.8 | -24.1 | | | |
| 711.00 | 21.11 | H | 2.4 | 1.4 | 20.08 | 34.8 | -14.7 | | | 711.00 | 19.99 | H | 2.4 | 1.4 | 18.96 | 34.8 | -15.8 | | | |
| 5MHz QPSK | | | | | | | | | | 5MHz 16QAM | | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | | |
| 701.50 | 13.84 | V | 2.4 | 1.0 | 12.40 | 34.8 | -22.4 | | | 701.50 | 12.84 | V | 2.4 | 1.0 | 11.40 | 34.8 | -23.4 | | | |
| 701.50 | 21.43 | H | 2.4 | 1.5 | 20.48 | 34.8 | -14.3 | | | 701.50 | 20.43 | H | 2.4 | 1.5 | 19.48 | 34.8 | -15.3 | | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | | |
| 707.50 | 13.81 | V | 2.4 | 1.0 | 12.39 | 34.8 | -22.4 | | | 707.50 | 12.90 | V | 2.4 | 1.0 | 11.48 | 34.8 | -23.3 | | | |
| 707.50 | 20.95 | H | 2.4 | 1.4 | 19.97 | 34.8 | -14.8 | | | 707.50 | 20.00 | H | 2.4 | 1.4 | 19.02 | 34.8 | -15.8 | | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | | |
| 713.50 | 14.59 | V | 2.5 | 1.0 | 13.13 | 34.8 | -21.7 | | | 713.50 | 13.45 | V | 2.5 | 1.0 | 11.99 | 34.8 | -22.8 | | | |
| 713.50 | 20.93 | H | 2.5 | 1.4 | 19.86 | 34.8 | -14.9 | | | 713.50 | 19.80 | H | 2.5 | 1.4 | 18.73 | 34.8 | -16.1 | | | |
| 3MHz QPSK | | | | | | | | | | 3MHz 16QAM | | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 12 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 12 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | | |
| 700.50 | 13.40 | V | 2.4 | 1.0 | 11.96 | 34.8 | -22.8 | | | 700.50 | 12.41 | V | 2.4 | 1.0 | 10.97 | 34.8 | -23.8 | | | |
| 700.50 | 21.49 | H | 2.4 | 1.5 | 20.55 | 34.8 | -14.3 | | | 700.50 | 20.49 | H | 2.4 | 1.5 | 19.55 | 34.8 | -15.3 | | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | | |
| 707.50 | 13.63 | V | 2.4 | 1.0 | 12.21 | 34.8 | -22.6 | | | 707.50 | 12.78 | V | 2.4 | 1.0 | 11.36 | 34.8 | -23.4 | | | |
| 707.50 | 20.82 | H | 2.4 | 1.4 | 19.84 | 34.8 | -15.0 | | | 707.50 | 19.97 | H | 2.4 | 1.4 | 18.99 | 34.8 | -15.8 | | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | | |
| 714.50 | 14.39 | V | 2.5 | 1.0 | 12.93 | 34.8 | -21.9 | | | 714.50 | 13.32 | V | 2.5 | 1.0 | 11.86 | 34.8 | -22.9 | | | |
| 714.50 | 21.32 | H | 2.5 | 1.4 | 20.24 | 34.8 | -14.6 | | | 714.50 | 20.26 | H | 2.5 | 1.4 | 19.18 | 34.8 | -15.6 | | | |
| 1.4MHz QPSK | | | | | | | | | | 1.4MHz 16QAM | | | | | | | | | | |

| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | |
|---|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|
| Company: Lions | | | | | | | | |
| Project #: 14938215 (SM-A256E_DSN) | | | | | | | | |
| Date: 10/18/2023 | | | | | | | | |
| Test Engineer: 12491 GM | | | | | | | | |
| Configuration: EUT Only | | | | | | | | |
| Location: 03-RDE-C | | | | | | | | |
| Mode: LTE_QPSK Band 12 Fundamentals, 1.4MHz Bandwidth | | | | | | | | |
| Test Equipment: | | | | | | | | |
| Receiving: Hybrid 235174, and 03-RDE-C SMA Cables | | | | | | | | |
| Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes |
| Low Ch | | | | | | | | |
| 699.70 | 13.74 | V | 2.4 | 1.0 | 12.30 | 34.8 | -22.5 | |
| 699.70 | 21.58 | H | 2.4 | 1.5 | 20.64 | 34.8 | -14.2 | |
| Mid Ch | | | | | | | | |
| 707.50 | 13.66 | V | 2.4 | 1.0 | 12.24 | 34.8 | -22.6 | |
| 707.50 | 20.90 | H | 2.4 | 1.4 | 19.92 | 34.8 | -14.9 | |
| High Ch | | | | | | | | |
| 715.30 | 14.64 | V | 2.5 | 1.0 | 13.17 | 34.8 | -21.6 | |
| 715.30 | 22.01 | H | 2.5 | 1.4 | 20.92 | 34.8 | -13.9 | |

| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | |
|---|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|
| Company: Lions | | | | | | | | |
| Project #: 14938215 (SM-A256E_DSN) | | | | | | | | |
| Date: 10/18/2023 | | | | | | | | |
| Test Engineer: 12491 GM | | | | | | | | |
| Configuration: EUT Only | | | | | | | | |
| Location: 03-RDE-C | | | | | | | | |
| Mode: LTE_16QAM Band 12 Fundamentals, 1.4MHz Bandwidth | | | | | | | | |
| Test Equipment: | | | | | | | | |
| Receiving: Hybrid 235174, and 03-RDE-C SMA Cables | | | | | | | | |
| Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes |
| Low Ch | | | | | | | | |
| 699.70 | 12.35 | V | 2.4 | 1.0 | 10.91 | 34.8 | -23.9 | |
| 699.70 | 20.20 | H | 2.4 | 1.5 | 19.26 | 34.8 | -15.5 | |
| Mid Ch | | | | | | | | |
| 707.50 | 12.45 | V | 2.4 | 1.0 | 11.03 | 34.8 | -23.8 | |
| 707.50 | 19.69 | H | 2.4 | 1.4 | 18.71 | 34.8 | -16.1 | |
| High Ch | | | | | | | | |
| 715.30 | 13.78 | V | 2.5 | 1.0 | 12.31 | 34.8 | -22.5 | |
| 715.30 | 20.88 | H | 2.5 | 1.4 | 19.79 | 34.8 | -15.0 | |

10.1.5. LTE Band 13

| 10MHz QPSK | | | | | | | | | | 10MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|-------------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|---|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|------|------|-------|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--|
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 13 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>782.00</td><td>0.00</td><td>V</td><td>3.7</td><td>0.1</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td>782.00</td><td>0.00</td><td>H</td><td>3.7</td><td>0.5</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>782.00</td><td>17.41</td><td>V</td><td>3.7</td><td>0.1</td><td>13.83</td><td>34.8</td><td>-20.9</td><td></td><td></td></tr> <tr><td>782.00</td><td>23.87</td><td>H</td><td>3.7</td><td>0.5</td><td>20.69</td><td>34.8</td><td>-14.1</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>782.00</td><td>0.00</td><td>V</td><td>3.7</td><td>0.1</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td>782.00</td><td>0.00</td><td>H</td><td>3.7</td><td>0.5</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | Mid Ch | | | | | | | | | | 782.00 | 17.41 | V | 3.7 | 0.1 | 13.83 | 34.8 | -20.9 | | | 782.00 | 23.87 | H | 3.7 | 0.5 | 20.69 | 34.8 | -14.1 | | | High Ch | | | | | | | | | | 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 13 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>782.00</td><td>0.00</td><td>V</td><td>3.7</td><td>0.1</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td>782.00</td><td>0.00</td><td>H</td><td>3.7</td><td>0.5</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>782.00</td><td>16.66</td><td>V</td><td>3.7</td><td>0.1</td><td>13.08</td><td>34.8</td><td>-21.7</td><td></td><td></td></tr> <tr><td>782.00</td><td>22.30</td><td>H</td><td>3.7</td><td>0.5</td><td>19.12</td><td>34.8</td><td>-15.7</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>782.00</td><td>0.00</td><td>V</td><td>3.7</td><td>0.1</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> <tr><td>782.00</td><td>0.00</td><td>H</td><td>3.7</td><td>0.5</td><td>0.00</td><td>34.8</td><td>0.0</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | Mid Ch | | | | | | | | | | 782.00 | 16.66 | V | 3.7 | 0.1 | 13.08 | 34.8 | -21.7 | | | 782.00 | 22.30 | H | 3.7 | 0.5 | 19.12 | 34.8 | -15.7 | | | High Ch | | | | | | | | | | 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 17.41 | V | 3.7 | 0.1 | 13.83 | 34.8 | -20.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 23.87 | H | 3.7 | 0.5 | 20.69 | 34.8 | -14.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 16.66 | V | 3.7 | 0.1 | 13.08 | 34.8 | -21.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 22.30 | H | 3.7 | 0.5 | 19.12 | 34.8 | -15.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | V | 3.7 | 0.1 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 0.00 | H | 3.7 | 0.5 | 0.00 | 34.8 | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 13 Fundamentals, 5MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>779.50</td><td>17.59</td><td>V</td><td>3.7</td><td>0.2</td><td>14.03</td><td>34.8</td><td>-20.7</td><td></td><td></td></tr> <tr><td>779.50</td><td>23.78</td><td>H</td><td>3.7</td><td>0.6</td><td>20.62</td><td>34.8</td><td>-14.1</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>782.00</td><td>16.88</td><td>V</td><td>3.7</td><td>0.1</td><td>13.30</td><td>34.8</td><td>-21.5</td><td></td><td></td></tr> <tr><td>782.00</td><td>23.17</td><td>H</td><td>3.7</td><td>0.5</td><td>19.99</td><td>34.8</td><td>-14.8</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>784.50</td><td>17.27</td><td>V</td><td>3.7</td><td>0.1</td><td>13.66</td><td>34.8</td><td>-21.1</td><td></td><td></td></tr> <tr><td>784.50</td><td>23.40</td><td>H</td><td>3.7</td><td>0.5</td><td>20.19</td><td>34.8</td><td>-14.6</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 779.50 | 17.59 | V | 3.7 | 0.2 | 14.03 | 34.8 | -20.7 | | | 779.50 | 23.78 | H | 3.7 | 0.6 | 20.62 | 34.8 | -14.1 | | | Mid Ch | | | | | | | | | | 782.00 | 16.88 | V | 3.7 | 0.1 | 13.30 | 34.8 | -21.5 | | | 782.00 | 23.17 | H | 3.7 | 0.5 | 19.99 | 34.8 | -14.8 | | | High Ch | | | | | | | | | | 784.50 | 17.27 | V | 3.7 | 0.1 | 13.66 | 34.8 | -21.1 | | | 784.50 | 23.40 | H | 3.7 | 0.5 | 20.19 | 34.8 | -14.6 | | | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/3/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 13 Fundamentals, 5MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235173, and 03-RDE-A SMA Cables Substitution: Dipole 89477, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>779.50</td><td>15.92</td><td>V</td><td>3.7</td><td>0.2</td><td>12.36</td><td>34.8</td><td>-22.4</td><td></td><td></td></tr> <tr><td>779.50</td><td>22.79</td><td>H</td><td>3.7</td><td>0.6</td><td>19.63</td><td>34.8</td><td>-15.1</td><td></td><td></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>782.00</td><td>16.82</td><td>V</td><td>3.7</td><td>0.1</td><td>13.24</td><td>34.8</td><td>-21.5</td><td></td><td></td></tr> <tr><td>782.00</td><td>22.83</td><td>H</td><td>3.7</td><td>0.5</td><td>19.65</td><td>34.8</td><td>-15.1</td><td></td><td></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>784.50</td><td>13.19</td><td>V</td><td>3.7</td><td>0.1</td><td>9.58</td><td>34.8</td><td>-25.2</td><td></td><td></td></tr> <tr><td>784.50</td><td>22.37</td><td>H</td><td>3.7</td><td>0.5</td><td>19.16</td><td>34.8</td><td>-15.6</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 779.50 | 15.92 | V | 3.7 | 0.2 | 12.36 | 34.8 | -22.4 | | | 779.50 | 22.79 | H | 3.7 | 0.6 | 19.63 | 34.8 | -15.1 | | | Mid Ch | | | | | | | | | | 782.00 | 16.82 | V | 3.7 | 0.1 | 13.24 | 34.8 | -21.5 | | | 782.00 | 22.83 | H | 3.7 | 0.5 | 19.65 | 34.8 | -15.1 | | | High Ch | | | | | | | | | | 784.50 | 13.19 | V | 3.7 | 0.1 | 9.58 | 34.8 | -25.2 | | | 784.50 | 22.37 | H | 3.7 | 0.5 | 19.16 | 34.8 | -15.6 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 779.50 | 17.59 | V | 3.7 | 0.2 | 14.03 | 34.8 | -20.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 779.50 | 23.78 | H | 3.7 | 0.6 | 20.62 | 34.8 | -14.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 16.88 | V | 3.7 | 0.1 | 13.30 | 34.8 | -21.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 23.17 | H | 3.7 | 0.5 | 19.99 | 34.8 | -14.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 784.50 | 17.27 | V | 3.7 | 0.1 | 13.66 | 34.8 | -21.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 784.50 | 23.40 | H | 3.7 | 0.5 | 20.19 | 34.8 | -14.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 779.50 | 15.92 | V | 3.7 | 0.2 | 12.36 | 34.8 | -22.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 779.50 | 22.79 | H | 3.7 | 0.6 | 19.63 | 34.8 | -15.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 16.82 | V | 3.7 | 0.1 | 13.24 | 34.8 | -21.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 782.00 | 22.83 | H | 3.7 | 0.5 | 19.65 | 34.8 | -15.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 784.50 | 13.19 | V | 3.7 | 0.1 | 9.58 | 34.8 | -25.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 784.50 | 22.37 | H | 3.7 | 0.5 | 19.16 | 34.8 | -15.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 3MHz QPSK | | | | | | | | | | 3MHz 16QAM | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|--|---------|---|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|--|---------|
| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | |
| Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32595 Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 3MHz Bandwidth | | | | | | | | | | Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32595 Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 3MHz Bandwidth | | | | | | | | | |
| Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | | Notes | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | | Notes |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 815.50 | 18.03 | V | 2.7 | 1.1 | 16.50 | 50.0 | -33.5 | | Part 90 | 815.50 | 17.19 | V | 2.7 | 1.1 | 15.66 | 50.0 | -34.3 | | Part 90 |
| 815.50 | 25.07 | H | 2.7 | 0.6 | 22.96 | 50.0 | -27.0 | | Part 90 | 815.50 | 24.23 | H | 2.7 | 0.6 | 22.12 | 50.0 | -27.9 | | Part 90 |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 819.00 | 18.77 | V | 2.7 | 1.1 | 17.22 | 38.5 | -21.3 | | Part 90 | 819.00 | 17.85 | V | 2.7 | 1.1 | 16.30 | 38.5 | -22.2 | | Part 90 |
| 819.00 | 24.06 | H | 2.7 | 0.6 | 21.96 | 38.5 | -16.5 | | Part 90 | 819.00 | 23.14 | H | 2.7 | 0.6 | 21.04 | 38.5 | -17.5 | | Part 90 |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 822.50 | 18.77 | V | 2.7 | 1.1 | 17.20 | 38.5 | -21.3 | | Part 90 | 822.50 | 17.70 | V | 2.7 | 1.1 | 16.13 | 38.5 | -22.4 | | Part 90 |
| 822.50 | 25.29 | H | 2.7 | 0.6 | 23.20 | 38.5 | -15.3 | | Part 90 | 822.50 | 23.94 | H | 2.7 | 0.6 | 21.85 | 38.5 | -16.7 | | Part 90 |
| 1.4MHz QPSK | | | | | | | | | | 1.4MHz 16QAM | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement | | | | | | | | | |
| Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32595 Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 1.4MHz Bandwidth | | | | | | | | | | Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32595 Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 1.4MHz Bandwidth | | | | | | | | | |
| Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | | Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | | Notes | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | | Notes |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 814.70 | 18.11 | V | 2.7 | 1.1 | 16.58 | 50.0 | -33.4 | | Part 90 | 814.70 | 17.28 | V | 2.7 | 1.1 | 15.75 | 50.0 | -34.2 | | Part 90 |
| 814.70 | 24.95 | H | 2.7 | 0.6 | 22.84 | 50.0 | -27.2 | | Part 90 | 814.70 | 24.12 | H | 2.7 | 0.6 | 22.01 | 50.0 | -28.0 | | Part 90 |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 819.00 | 18.08 | V | 2.7 | 1.1 | 16.53 | 38.5 | -22.0 | | Part 90 | 819.00 | 17.13 | V | 2.7 | 1.1 | 15.58 | 38.5 | -22.9 | | Part 90 |
| 819.00 | 24.74 | H | 2.7 | 0.6 | 22.64 | 38.5 | -15.9 | | Part 90 | 819.00 | 23.79 | H | 2.7 | 0.6 | 21.69 | 38.5 | -16.8 | | Part 90 |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 822.50 | 19.11 | V | 2.7 | 1.1 | 17.54 | 38.5 | -21.0 | | Part 90 | 823.30 | 18.02 | V | 2.7 | 1.1 | 16.44 | 38.5 | -22.1 | | Part 90 |
| 822.50 | 25.35 | H | 2.7 | 0.6 | 23.26 | 38.5 | -15.2 | | Part 90 | 823.30 | 24.26 | H | 2.7 | 0.6 | 22.17 | 38.5 | -16.3 | | Part 90 |

10.1.7. LTE Band 26 (FCC PART 22)

| 15MHz QPSK | | | | | | | | | | 15MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|------|-------------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|---------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|---|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|---------|--|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|-------|------|--------|-------|---|-----|-----|-------|------|-------|-------|------|
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>831.50</td><td>15.83</td><td>V</td><td>2.7</td><td>1.1</td><td>14.24</td><td>38.5</td><td>-24.3</td><td>13.36</td><td>38.5</td></tr> <tr><td>831.50</td><td>18.27</td><td>H</td><td>2.7</td><td>0.6</td><td>16.18</td><td>38.5</td><td>-22.3</td><td>15.81</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>16.08</td><td>V</td><td>2.7</td><td>1.1</td><td>14.48</td><td>38.5</td><td>-24.0</td><td>13.74</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.41</td><td>H</td><td>2.7</td><td>0.6</td><td>16.31</td><td>38.5</td><td>-22.2</td><td>15.90</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>841.50</td><td>16.47</td><td>V</td><td>2.7</td><td>1.1</td><td>14.85</td><td>38.5</td><td>-23.6</td><td>13.75</td><td>38.5</td></tr> <tr><td>841.50</td><td>18.54</td><td>H</td><td>2.7</td><td>0.6</td><td>16.42</td><td>38.5</td><td>-22.1</td><td>15.96</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 831.50 | 15.83 | V | 2.7 | 1.1 | 14.24 | 38.5 | -24.3 | 13.36 | 38.5 | 831.50 | 18.27 | H | 2.7 | 0.6 | 16.18 | 38.5 | -22.3 | 15.81 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 16.08 | V | 2.7 | 1.1 | 14.48 | 38.5 | -24.0 | 13.74 | 38.5 | 836.50 | 18.41 | H | 2.7 | 0.6 | 16.31 | 38.5 | -22.2 | 15.90 | 38.5 | High Ch | | | | | | | | | | 841.50 | 16.47 | V | 2.7 | 1.1 | 14.85 | 38.5 | -23.6 | 13.75 | 38.5 | 841.50 | 18.54 | H | 2.7 | 0.6 | 16.42 | 38.5 | -22.1 | 15.96 | 38.5 | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>831.50</td><td>14.95</td><td>V</td><td>2.7</td><td>1.1</td><td>13.36</td><td>38.5</td><td>-25.1</td><td>13.36</td><td>38.5</td></tr> <tr><td>831.50</td><td>17.90</td><td>H</td><td>2.7</td><td>0.6</td><td>15.81</td><td>38.5</td><td>-22.7</td><td>15.81</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>15.34</td><td>V</td><td>2.7</td><td>1.1</td><td>13.74</td><td>38.5</td><td>-24.8</td><td>13.74</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.00</td><td>H</td><td>2.7</td><td>0.6</td><td>15.90</td><td>38.5</td><td>-22.6</td><td>15.90</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>841.50</td><td>15.37</td><td>V</td><td>2.7</td><td>1.1</td><td>13.75</td><td>38.5</td><td>-24.7</td><td>13.75</td><td>38.5</td></tr> <tr><td>841.50</td><td>18.08</td><td>H</td><td>2.7</td><td>0.6</td><td>15.96</td><td>38.5</td><td>-22.5</td><td>15.96</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 831.50 | 14.95 | V | 2.7 | 1.1 | 13.36 | 38.5 | -25.1 | 13.36 | 38.5 | 831.50 | 17.90 | H | 2.7 | 0.6 | 15.81 | 38.5 | -22.7 | 15.81 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 15.34 | V | 2.7 | 1.1 | 13.74 | 38.5 | -24.8 | 13.74 | 38.5 | 836.50 | 18.00 | H | 2.7 | 0.6 | 15.90 | 38.5 | -22.6 | 15.90 | 38.5 | High Ch | | | | | | | | | | 841.50 | 15.37 | V | 2.7 | 1.1 | 13.75 | 38.5 | -24.7 | 13.75 | 38.5 | 841.50 | 18.08 | H | 2.7 | 0.6 | 15.96 | 38.5 | -22.5 | 15.96 | 38.5 |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 831.50 | 15.83 | V | 2.7 | 1.1 | 14.24 | 38.5 | -24.3 | 13.36 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 831.50 | 18.27 | H | 2.7 | 0.6 | 16.18 | 38.5 | -22.3 | 15.81 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 16.08 | V | 2.7 | 1.1 | 14.48 | 38.5 | -24.0 | 13.74 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.41 | H | 2.7 | 0.6 | 16.31 | 38.5 | -22.2 | 15.90 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 841.50 | 16.47 | V | 2.7 | 1.1 | 14.85 | 38.5 | -23.6 | 13.75 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 841.50 | 18.54 | H | 2.7 | 0.6 | 16.42 | 38.5 | -22.1 | 15.96 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 831.50 | 14.95 | V | 2.7 | 1.1 | 13.36 | 38.5 | -25.1 | 13.36 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 831.50 | 17.90 | H | 2.7 | 0.6 | 15.81 | 38.5 | -22.7 | 15.81 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 15.34 | V | 2.7 | 1.1 | 13.74 | 38.5 | -24.8 | 13.74 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.00 | H | 2.7 | 0.6 | 15.90 | 38.5 | -22.6 | 15.90 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 841.50 | 15.37 | V | 2.7 | 1.1 | 13.75 | 38.5 | -24.7 | 13.75 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 841.50 | 18.08 | H | 2.7 | 0.6 | 15.96 | 38.5 | -22.5 | 15.96 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>829.00</td><td>16.15</td><td>V</td><td>2.7</td><td>1.1</td><td>14.56</td><td>38.5</td><td>-23.9</td><td>13.60</td><td>38.5</td></tr> <tr><td>829.00</td><td>18.44</td><td>H</td><td>2.7</td><td>0.6</td><td>16.35</td><td>38.5</td><td>-22.2</td><td>15.53</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>15.64</td><td>V</td><td>2.7</td><td>1.1</td><td>14.04</td><td>38.5</td><td>-24.5</td><td>12.99</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.49</td><td>H</td><td>2.7</td><td>0.6</td><td>16.39</td><td>38.5</td><td>-22.1</td><td>15.96</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>844.00</td><td>13.90</td><td>V</td><td>2.7</td><td>1.1</td><td>12.27</td><td>38.5</td><td>-26.2</td><td>12.12</td><td>38.5</td></tr> <tr><td>844.00</td><td>14.23</td><td>H</td><td>2.7</td><td>0.6</td><td>12.10</td><td>38.5</td><td>-26.4</td><td>11.11</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 829.00 | 16.15 | V | 2.7 | 1.1 | 14.56 | 38.5 | -23.9 | 13.60 | 38.5 | 829.00 | 18.44 | H | 2.7 | 0.6 | 16.35 | 38.5 | -22.2 | 15.53 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 15.64 | V | 2.7 | 1.1 | 14.04 | 38.5 | -24.5 | 12.99 | 38.5 | 836.50 | 18.49 | H | 2.7 | 0.6 | 16.39 | 38.5 | -22.1 | 15.96 | 38.5 | High Ch | | | | | | | | | | 844.00 | 13.90 | V | 2.7 | 1.1 | 12.27 | 38.5 | -26.2 | 12.12 | 38.5 | 844.00 | 14.23 | H | 2.7 | 0.6 | 12.10 | 38.5 | -26.4 | 11.11 | 38.5 | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/4/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>829.00</td><td>15.19</td><td>V</td><td>2.7</td><td>1.1</td><td>13.60</td><td>38.5</td><td>-24.9</td><td>13.60</td><td>38.5</td></tr> <tr><td>829.00</td><td>17.62</td><td>H</td><td>2.7</td><td>0.6</td><td>15.53</td><td>38.5</td><td>-23.0</td><td>15.53</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>14.59</td><td>V</td><td>2.7</td><td>1.1</td><td>12.99</td><td>38.5</td><td>-25.5</td><td>12.99</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.06</td><td>H</td><td>2.7</td><td>0.6</td><td>15.96</td><td>38.5</td><td>-22.5</td><td>15.96</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>844.00</td><td>13.75</td><td>V</td><td>2.7</td><td>1.1</td><td>12.12</td><td>38.5</td><td>-26.4</td><td>12.12</td><td>38.5</td></tr> <tr><td>844.00</td><td>13.24</td><td>H</td><td>2.7</td><td>0.6</td><td>11.11</td><td>38.5</td><td>-27.4</td><td>11.11</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 829.00 | 15.19 | V | 2.7 | 1.1 | 13.60 | 38.5 | -24.9 | 13.60 | 38.5 | 829.00 | 17.62 | H | 2.7 | 0.6 | 15.53 | 38.5 | -23.0 | 15.53 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 14.59 | V | 2.7 | 1.1 | 12.99 | 38.5 | -25.5 | 12.99 | 38.5 | 836.50 | 18.06 | H | 2.7 | 0.6 | 15.96 | 38.5 | -22.5 | 15.96 | 38.5 | High Ch | | | | | | | | | | 844.00 | 13.75 | V | 2.7 | 1.1 | 12.12 | 38.5 | -26.4 | 12.12 | 38.5 | 844.00 | 13.24 | H | 2.7 | 0.6 | 11.11 | 38.5 | -27.4 | 11.11 | 38.5 |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 829.00 | 16.15 | V | 2.7 | 1.1 | 14.56 | 38.5 | -23.9 | 13.60 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 829.00 | 18.44 | H | 2.7 | 0.6 | 16.35 | 38.5 | -22.2 | 15.53 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 15.64 | V | 2.7 | 1.1 | 14.04 | 38.5 | -24.5 | 12.99 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.49 | H | 2.7 | 0.6 | 16.39 | 38.5 | -22.1 | 15.96 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 844.00 | 13.90 | V | 2.7 | 1.1 | 12.27 | 38.5 | -26.2 | 12.12 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 844.00 | 14.23 | H | 2.7 | 0.6 | 12.10 | 38.5 | -26.4 | 11.11 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 829.00 | 15.19 | V | 2.7 | 1.1 | 13.60 | 38.5 | -24.9 | 13.60 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 829.00 | 17.62 | H | 2.7 | 0.6 | 15.53 | 38.5 | -23.0 | 15.53 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 14.59 | V | 2.7 | 1.1 | 12.99 | 38.5 | -25.5 | 12.99 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.06 | H | 2.7 | 0.6 | 15.96 | 38.5 | -22.5 | 15.96 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 844.00 | 13.75 | V | 2.7 | 1.1 | 12.12 | 38.5 | -26.4 | 12.12 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 844.00 | 13.24 | H | 2.7 | 0.6 | 11.11 | 38.5 | -27.4 | 11.11 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lion Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 5MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>826.50</td><td>19.24</td><td>V</td><td>2.7</td><td>1.1</td><td>17.65</td><td>38.5</td><td>-20.9</td><td>16.71</td><td>38.5</td></tr> <tr><td>826.50</td><td>19.92</td><td>H</td><td>2.7</td><td>0.6</td><td>17.83</td><td>38.5</td><td>-20.7</td><td>17.42</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>16.08</td><td>V</td><td>2.7</td><td>1.1</td><td>14.48</td><td>38.5</td><td>-24.0</td><td>13.62</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.40</td><td>H</td><td>2.7</td><td>0.6</td><td>16.30</td><td>38.5</td><td>-22.2</td><td>15.92</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>846.50</td><td>7.69</td><td>V</td><td>2.7</td><td>1.1</td><td>6.05</td><td>38.5</td><td>-32.4</td><td>5.89</td><td>38.5</td></tr> <tr><td>846.50</td><td>15.23</td><td>H</td><td>2.7</td><td>0.6</td><td>13.09</td><td>38.5</td><td>-25.4</td><td>12.59</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 826.50 | 19.24 | V | 2.7 | 1.1 | 17.65 | 38.5 | -20.9 | 16.71 | 38.5 | 826.50 | 19.92 | H | 2.7 | 0.6 | 17.83 | 38.5 | -20.7 | 17.42 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 16.08 | V | 2.7 | 1.1 | 14.48 | 38.5 | -24.0 | 13.62 | 38.5 | 836.50 | 18.40 | H | 2.7 | 0.6 | 16.30 | 38.5 | -22.2 | 15.92 | 38.5 | High Ch | | | | | | | | | | 846.50 | 7.69 | V | 2.7 | 1.1 | 6.05 | 38.5 | -32.4 | 5.89 | 38.5 | 846.50 | 15.23 | H | 2.7 | 0.6 | 13.09 | 38.5 | -25.4 | 12.59 | 38.5 | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lion Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 5MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>826.50</td><td>18.30</td><td>V</td><td>2.7</td><td>1.1</td><td>16.71</td><td>38.5</td><td>-21.8</td><td>16.71</td><td>38.5</td></tr> <tr><td>826.50</td><td>19.51</td><td>H</td><td>2.7</td><td>0.6</td><td>17.42</td><td>38.5</td><td>-21.1</td><td>17.42</td><td>38.5</td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.50</td><td>15.22</td><td>V</td><td>2.7</td><td>1.1</td><td>13.62</td><td>38.5</td><td>-24.9</td><td>13.62</td><td>38.5</td></tr> <tr><td>836.50</td><td>18.02</td><td>H</td><td>2.7</td><td>0.6</td><td>15.92</td><td>38.5</td><td>-22.6</td><td>15.92</td><td>38.5</td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>846.50</td><td>7.53</td><td>V</td><td>2.7</td><td>1.1</td><td>5.89</td><td>38.5</td><td>-32.6</td><td>5.89</td><td>38.5</td></tr> <tr><td>846.50</td><td>14.73</td><td>H</td><td>2.7</td><td>0.6</td><td>12.59</td><td>38.5</td><td>-25.9</td><td>12.59</td><td>38.5</td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 826.50 | 18.30 | V | 2.7 | 1.1 | 16.71 | 38.5 | -21.8 | 16.71 | 38.5 | 826.50 | 19.51 | H | 2.7 | 0.6 | 17.42 | 38.5 | -21.1 | 17.42 | 38.5 | Mid Ch | | | | | | | | | | 836.50 | 15.22 | V | 2.7 | 1.1 | 13.62 | 38.5 | -24.9 | 13.62 | 38.5 | 836.50 | 18.02 | H | 2.7 | 0.6 | 15.92 | 38.5 | -22.6 | 15.92 | 38.5 | High Ch | | | | | | | | | | 846.50 | 7.53 | V | 2.7 | 1.1 | 5.89 | 38.5 | -32.6 | 5.89 | 38.5 | 846.50 | 14.73 | H | 2.7 | 0.6 | 12.59 | 38.5 | -25.9 | 12.59 | 38.5 |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.50 | 19.24 | V | 2.7 | 1.1 | 17.65 | 38.5 | -20.9 | 16.71 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.50 | 19.92 | H | 2.7 | 0.6 | 17.83 | 38.5 | -20.7 | 17.42 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 16.08 | V | 2.7 | 1.1 | 14.48 | 38.5 | -24.0 | 13.62 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.40 | H | 2.7 | 0.6 | 16.30 | 38.5 | -22.2 | 15.92 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.50 | 7.69 | V | 2.7 | 1.1 | 6.05 | 38.5 | -32.4 | 5.89 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.50 | 15.23 | H | 2.7 | 0.6 | 13.09 | 38.5 | -25.4 | 12.59 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.50 | 18.30 | V | 2.7 | 1.1 | 16.71 | 38.5 | -21.8 | 16.71 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 826.50 | 19.51 | H | 2.7 | 0.6 | 17.42 | 38.5 | -21.1 | 17.42 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 15.22 | V | 2.7 | 1.1 | 13.62 | 38.5 | -24.9 | 13.62 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.02 | H | 2.7 | 0.6 | 15.92 | 38.5 | -22.6 | 15.92 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.50 | 7.53 | V | 2.7 | 1.1 | 5.89 | 38.5 | -32.6 | 5.89 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 846.50 | 14.73 | H | 2.7 | 0.6 | 12.59 | 38.5 | -25.9 | 12.59 | 38.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 3MHz QPSK | | | | | | | | | 3MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--------------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--------|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|---------|--|--|--|--|--|--|--|--|--------|------|---|-----|-----|------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|---|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|-----------|-------------|------------|-------|--------|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|--|--|--|--|--|--|--|--|--------|-------|---|-----|-----|-------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|---------|--|--|--|--|--|--|--|--|--------|------|---|-----|-----|------|------|-------|--|--------|-------|---|-----|-----|-------|------|-------|--|
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lion Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 3MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>825.50</td><td>18.89</td><td>V</td><td>2.7</td><td>1.1</td><td>17.40</td><td>38.5</td><td>-21.1</td><td></td></tr> <tr><td>825.50</td><td>19.93</td><td>H</td><td>2.7</td><td>0.6</td><td>17.84</td><td>38.5</td><td>-20.7</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>836.50</td><td>16.21</td><td>V</td><td>2.7</td><td>1.1</td><td>14.61</td><td>38.5</td><td>-23.9</td><td></td></tr> <tr><td>836.50</td><td>18.45</td><td>H</td><td>2.7</td><td>0.6</td><td>16.35</td><td>38.5</td><td>-22.1</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>847.50</td><td>6.62</td><td>V</td><td>2.7</td><td>1.1</td><td>4.98</td><td>38.5</td><td>-33.5</td><td></td></tr> <tr><td>847.50</td><td>15.05</td><td>H</td><td>2.7</td><td>0.6</td><td>12.91</td><td>38.5</td><td>-25.6</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 825.50 | 18.89 | V | 2.7 | 1.1 | 17.40 | 38.5 | -21.1 | | 825.50 | 19.93 | H | 2.7 | 0.6 | 17.84 | 38.5 | -20.7 | | Mid Ch | | | | | | | | | 836.50 | 16.21 | V | 2.7 | 1.1 | 14.61 | 38.5 | -23.9 | | 836.50 | 18.45 | H | 2.7 | 0.6 | 16.35 | 38.5 | -22.1 | | High Ch | | | | | | | | | 847.50 | 6.62 | V | 2.7 | 1.1 | 4.98 | 38.5 | -33.5 | | 847.50 | 15.05 | H | 2.7 | 0.6 | 12.91 | 38.5 | -25.6 | | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lion Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 12491 GM Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 3MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>825.50</td><td>17.95</td><td>V</td><td>2.7</td><td>1.1</td><td>16.36</td><td>38.5</td><td>-22.1</td><td></td></tr> <tr><td>825.50</td><td>19.53</td><td>H</td><td>2.7</td><td>0.6</td><td>17.44</td><td>38.5</td><td>-21.1</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>836.50</td><td>15.30</td><td>V</td><td>2.7</td><td>1.1</td><td>13.70</td><td>38.5</td><td>-24.8</td><td></td></tr> <tr><td>836.50</td><td>18.01</td><td>H</td><td>2.7</td><td>0.6</td><td>15.91</td><td>38.5</td><td>-22.6</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>847.50</td><td>5.73</td><td>V</td><td>2.7</td><td>1.1</td><td>4.09</td><td>38.5</td><td>-34.4</td><td></td></tr> <tr><td>847.50</td><td>14.20</td><td>H</td><td>2.7</td><td>0.6</td><td>12.06</td><td>38.5</td><td>-26.4</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 825.50 | 17.95 | V | 2.7 | 1.1 | 16.36 | 38.5 | -22.1 | | 825.50 | 19.53 | H | 2.7 | 0.6 | 17.44 | 38.5 | -21.1 | | Mid Ch | | | | | | | | | 836.50 | 15.30 | V | 2.7 | 1.1 | 13.70 | 38.5 | -24.8 | | 836.50 | 18.01 | H | 2.7 | 0.6 | 15.91 | 38.5 | -22.6 | | High Ch | | | | | | | | | 847.50 | 5.73 | V | 2.7 | 1.1 | 4.09 | 38.5 | -34.4 | | 847.50 | 14.20 | H | 2.7 | 0.6 | 12.06 | 38.5 | -26.4 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 825.50 | 18.89 | V | 2.7 | 1.1 | 17.40 | 38.5 | -21.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 825.50 | 19.93 | H | 2.7 | 0.6 | 17.84 | 38.5 | -20.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 16.21 | V | 2.7 | 1.1 | 14.61 | 38.5 | -23.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.45 | H | 2.7 | 0.6 | 16.35 | 38.5 | -22.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 847.50 | 6.62 | V | 2.7 | 1.1 | 4.98 | 38.5 | -33.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 847.50 | 15.05 | H | 2.7 | 0.6 | 12.91 | 38.5 | -25.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 825.50 | 17.95 | V | 2.7 | 1.1 | 16.36 | 38.5 | -22.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 825.50 | 19.53 | H | 2.7 | 0.6 | 17.44 | 38.5 | -21.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 15.30 | V | 2.7 | 1.1 | 13.70 | 38.5 | -24.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.01 | H | 2.7 | 0.6 | 15.91 | 38.5 | -22.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 847.50 | 5.73 | V | 2.7 | 1.1 | 4.09 | 38.5 | -34.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 847.50 | 14.20 | H | 2.7 | 0.6 | 12.06 | 38.5 | -26.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4MHz QPSK | | | | | | | | | 1.4MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 26 Fundamentals, 1.4MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>824.70</td><td>19.17</td><td>V</td><td>2.7</td><td>1.1</td><td>17.58</td><td>50.0</td><td>-32.4</td><td></td></tr> <tr><td>824.70</td><td>19.86</td><td>H</td><td>2.7</td><td>0.6</td><td>17.77</td><td>50.0</td><td>-32.2</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>836.50</td><td>16.05</td><td>V</td><td>2.7</td><td>1.1</td><td>14.45</td><td>38.5</td><td>-24.0</td><td></td></tr> <tr><td>836.50</td><td>18.25</td><td>H</td><td>2.7</td><td>0.6</td><td>16.15</td><td>38.5</td><td>-22.3</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>848.30</td><td>6.41</td><td>V</td><td>2.7</td><td>1.1</td><td>4.77</td><td>38.5</td><td>-33.7</td><td></td></tr> <tr><td>848.30</td><td>14.42</td><td>H</td><td>2.7</td><td>0.6</td><td>12.28</td><td>38.5</td><td>-26.2</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 824.70 | 19.17 | V | 2.7 | 1.1 | 17.58 | 50.0 | -32.4 | | 824.70 | 19.86 | H | 2.7 | 0.6 | 17.77 | 50.0 | -32.2 | | Mid Ch | | | | | | | | | 836.50 | 16.05 | V | 2.7 | 1.1 | 14.45 | 38.5 | -24.0 | | 836.50 | 18.25 | H | 2.7 | 0.6 | 16.15 | 38.5 | -22.3 | | High Ch | | | | | | | | | 848.30 | 6.41 | V | 2.7 | 1.1 | 4.77 | 38.5 | -33.7 | | 848.30 | 14.42 | H | 2.7 | 0.6 | 12.28 | 38.5 | -26.2 | | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/5/2023 Test Engineer: 27700 JR Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 26 Fundamentals, 1.4MHz Bandwidth</p> <p>Test Equipment: Receiving: Hybrid 235174, and 03-RDE-C SMA Cables Substitution: Dipole 808005, 03-RDE-C Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>824.70</td><td>17.90</td><td>V</td><td>2.7</td><td>1.1</td><td>16.31</td><td>50.0</td><td>-33.7</td><td></td></tr> <tr><td>824.70</td><td>19.45</td><td>H</td><td>2.7</td><td>0.6</td><td>17.36</td><td>50.0</td><td>-32.6</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>836.50</td><td>14.80</td><td>V</td><td>2.7</td><td>1.1</td><td>13.20</td><td>38.5</td><td>-25.3</td><td></td></tr> <tr><td>836.50</td><td>18.03</td><td>H</td><td>2.7</td><td>0.6</td><td>15.93</td><td>38.5</td><td>-22.6</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>848.30</td><td>5.27</td><td>V</td><td>2.7</td><td>1.1</td><td>3.63</td><td>38.5</td><td>-34.9</td><td></td></tr> <tr><td>848.30</td><td>12.42</td><td>H</td><td>2.7</td><td>0.6</td><td>10.28</td><td>38.5</td><td>-28.2</td><td></td></tr> </tbody> </table> | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 824.70 | 17.90 | V | 2.7 | 1.1 | 16.31 | 50.0 | -33.7 | | 824.70 | 19.45 | H | 2.7 | 0.6 | 17.36 | 50.0 | -32.6 | | Mid Ch | | | | | | | | | 836.50 | 14.80 | V | 2.7 | 1.1 | 13.20 | 38.5 | -25.3 | | 836.50 | 18.03 | H | 2.7 | 0.6 | 15.93 | 38.5 | -22.6 | | High Ch | | | | | | | | | 848.30 | 5.27 | V | 2.7 | 1.1 | 3.63 | 38.5 | -34.9 | | 848.30 | 12.42 | H | 2.7 | 0.6 | 10.28 | 38.5 | -28.2 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.70 | 19.17 | V | 2.7 | 1.1 | 17.58 | 50.0 | -32.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.70 | 19.86 | H | 2.7 | 0.6 | 17.77 | 50.0 | -32.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 16.05 | V | 2.7 | 1.1 | 14.45 | 38.5 | -24.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.25 | H | 2.7 | 0.6 | 16.15 | 38.5 | -22.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.30 | 6.41 | V | 2.7 | 1.1 | 4.77 | 38.5 | -33.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.30 | 14.42 | H | 2.7 | 0.6 | 12.28 | 38.5 | -26.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBd) | ERP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.70 | 17.90 | V | 2.7 | 1.1 | 16.31 | 50.0 | -33.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 824.70 | 19.45 | H | 2.7 | 0.6 | 17.36 | 50.0 | -32.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 14.80 | V | 2.7 | 1.1 | 13.20 | 38.5 | -25.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 836.50 | 18.03 | H | 2.7 | 0.6 | 15.93 | 38.5 | -22.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.30 | 5.27 | V | 2.7 | 1.1 | 3.63 | 38.5 | -34.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 848.30 | 12.42 | H | 2.7 | 0.6 | 10.28 | 38.5 | -28.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

10.1.8. LTE Band 41

| 20MHz QPSK | | | | | | | | | | 20MHz 16QAM | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|---|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 50820 EC Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 41(FCC) Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 50820 EC Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 41(FCC) Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | 12.72 | V | 6.0 | 6.0 | 12.70 | 33.0 | -20.3 | | | Low Ch | 12.84 | V | 6.0 | 6.0 | 12.92 | 33.0 | -20.1 | | |
| 2506.00 | 16.99 | H | 6.0 | 6.0 | 16.97 | 33.0 | -16.0 | | | 2506.00 | 17.23 | H | 6.0 | 6.0 | 17.21 | 33.0 | -15.8 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 2593.00 | 17.21 | V | 6.3 | 6.2 | 17.11 | 33.0 | -15.9 | | | 2593.00 | 17.47 | V | 6.3 | 6.2 | 17.37 | 33.0 | -15.6 | | |
| 2593.00 | 19.51 | H | 6.3 | 6.2 | 19.41 | 33.0 | -13.6 | | | 2593.00 | 19.46 | H | 6.3 | 6.2 | 19.36 | 33.0 | -13.6 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 2680.00 | 15.73 | V | 6.4 | 6.4 | 15.74 | 33.0 | -17.3 | | | 2680.00 | 15.09 | V | 6.4 | 6.4 | 15.10 | 33.0 | -17.9 | | |
| 2680.00 | 16.94 | H | 6.4 | 6.4 | 16.95 | 33.0 | -16.0 | | | 2680.00 | 16.28 | H | 6.4 | 6.4 | 16.29 | 33.0 | -16.7 | | |
| 15MHz QPSK | | | | | | | | | | 15MHz 16QAM | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 41(FCC) Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 41(FCC) Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | 15.87 | V | 6.0 | 6.0 | 15.84 | 33.0 | -17.2 | | | Low Ch | 15.96 | V | 6.0 | 6.0 | 15.93 | 33.0 | -17.1 | | |
| 2503.50 | 15.96 | H | 6.0 | 6.0 | 15.93 | 33.0 | -17.1 | | | 2503.50 | 16.96 | H | 6.0 | 6.0 | 16.93 | 33.0 | -16.1 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 2593.00 | 19.01 | V | 6.3 | 6.2 | 18.91 | 33.0 | -14.1 | | | 2593.00 | 19.36 | V | 6.3 | 6.2 | 19.26 | 33.0 | -13.7 | | |
| 2593.00 | 20.47 | H | 6.3 | 6.2 | 20.37 | 33.0 | -12.6 | | | 2593.00 | 19.76 | H | 6.3 | 6.2 | 19.66 | 33.0 | -13.3 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 2682.50 | 15.33 | V | 6.4 | 6.4 | 15.35 | 33.0 | -17.7 | | | 2682.50 | 12.45 | V | 6.4 | 6.4 | 12.47 | 33.0 | -20.5 | | |
| 2682.50 | 17.70 | H | 6.4 | 6.4 | 17.72 | 33.0 | -15.3 | | | 2682.50 | 17.16 | H | 6.4 | 6.4 | 17.18 | 33.0 | -15.8 | | |
| 10MHz QPSK | | | | | | | | | | 10MHz 16QAM | | | | | | | | | |
| UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 41(FCC) Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | | UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 41(FCC) Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Horn 226672, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | 17.36 | V | 6.0 | 6.0 | 17.33 | 33.0 | -15.7 | | | Low Ch | 12.75 | V | 6.0 | 6.0 | 12.72 | 33.0 | -20.3 | | |
| 2501.00 | 18.04 | H | 6.0 | 6.0 | 18.01 | 33.0 | -15.0 | | | 2501.00 | 17.75 | H | 6.0 | 6.0 | 17.72 | 33.0 | -15.3 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 2593.00 | 13.53 | V | 6.3 | 6.2 | 13.43 | 33.0 | -19.6 | | | 2593.00 | 11.87 | V | 6.3 | 6.2 | 11.77 | 33.0 | -21.2 | | |
| 2593.00 | 21.21 | H | 6.3 | 6.2 | 21.11 | 33.0 | -11.9 | | | 2593.00 | 19.24 | H | 6.3 | 6.2 | 19.14 | 33.0 | -13.9 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 2685.00 | 16.73 | V | 6.4 | 6.4 | 16.75 | 33.0 | -16.2 | | | 2685.00 | 14.89 | V | 6.4 | 6.4 | 14.91 | 33.0 | -18.1 | | |
| 2685.00 | 18.24 | H | 6.4 | 6.4 | 18.26 | 33.0 | -14.7 | | | 2685.00 | 16.95 | H | 6.4 | 6.4 | 16.97 | 33.0 | -16.0 | | |

| 5MHz QPSK | | | | | | | | | 5MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|--------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|---------|-------|---|-----|-----|-------|------|-------|--|
| UL Verification Services, Inc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Frequency Substitution Measurement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_QPSK Band 41(FCC) Fundamentals, 5MHz Bandwidth | | | | | | | | | Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/17/2023 Test Engineer: 32595 RT Configuration: EUT Only Location: 03-RDE-C Mode: LTE_16QAM Band 41(FCC) Fundamentals, 5MHz Bandwidth | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Equipment: Receiving: Horn 226872, and 03-RDE-C SMA Cables Substitution: Horn 223084, 03-RDE-C Passthrough Cables | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>2498.50</td><td>17.96</td><td>V</td><td>6.0</td><td>5.9</td><td>17.93</td><td>33.0</td><td>-15.1</td><td></td></tr> <tr><td>2498.50</td><td>17.90</td><td>H</td><td>6.0</td><td>5.9</td><td>17.87</td><td>33.0</td><td>-15.1</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>2593.00</td><td>21.03</td><td>V</td><td>6.3</td><td>6.2</td><td>20.93</td><td>33.0</td><td>-12.1</td><td></td></tr> <tr><td>2593.00</td><td>20.87</td><td>H</td><td>6.3</td><td>6.2</td><td>20.77</td><td>33.0</td><td>-12.2</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>2687.50</td><td>16.15</td><td>V</td><td>6.4</td><td>6.5</td><td>16.18</td><td>33.0</td><td>-16.8</td><td></td></tr> <tr><td>2687.50</td><td>17.75</td><td>H</td><td>6.4</td><td>6.5</td><td>17.78</td><td>33.0</td><td>-15.2</td><td></td></tr> </tbody> </table> | | | | | | | | | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 2498.50 | 17.96 | V | 6.0 | 5.9 | 17.93 | 33.0 | -15.1 | | 2498.50 | 17.90 | H | 6.0 | 5.9 | 17.87 | 33.0 | -15.1 | | Mid Ch | | | | | | | | | 2593.00 | 21.03 | V | 6.3 | 6.2 | 20.93 | 33.0 | -12.1 | | 2593.00 | 20.87 | H | 6.3 | 6.2 | 20.77 | 33.0 | -12.2 | | High Ch | | | | | | | | | 2687.50 | 16.15 | V | 6.4 | 6.5 | 16.18 | 33.0 | -16.8 | | 2687.50 | 17.75 | H | 6.4 | 6.5 | 17.78 | 33.0 | -15.2 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2498.50 | 17.96 | V | 6.0 | 5.9 | 17.93 | 33.0 | -15.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2498.50 | 17.90 | H | 6.0 | 5.9 | 17.87 | 33.0 | -15.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2593.00 | 21.03 | V | 6.3 | 6.2 | 20.93 | 33.0 | -12.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2593.00 | 20.87 | H | 6.3 | 6.2 | 20.77 | 33.0 | -12.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2687.50 | 16.15 | V | 6.4 | 6.5 | 16.18 | 33.0 | -16.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2687.50 | 17.75 | H | 6.4 | 6.5 | 17.78 | 33.0 | -15.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr><td colspan="9">Low Ch</td></tr> <tr><td>2498.50</td><td>17.56</td><td>V</td><td>6.0</td><td>5.9</td><td>17.53</td><td>33.0</td><td>-15.5</td><td></td></tr> <tr><td>2498.50</td><td>16.87</td><td>H</td><td>6.0</td><td>5.9</td><td>16.84</td><td>33.0</td><td>-16.2</td><td></td></tr> <tr><td colspan="9">Mid Ch</td></tr> <tr><td>2593.00</td><td>18.12</td><td>V</td><td>6.3</td><td>6.2</td><td>18.02</td><td>33.0</td><td>-15.0</td><td></td></tr> <tr><td>2593.00</td><td>19.69</td><td>H</td><td>6.3</td><td>6.2</td><td>19.59</td><td>33.0</td><td>-13.4</td><td></td></tr> <tr><td colspan="9">High Ch</td></tr> <tr><td>2687.50</td><td>16.07</td><td>V</td><td>6.4</td><td>6.5</td><td>16.10</td><td>33.0</td><td>-16.9</td><td></td></tr> <tr><td>2687.50</td><td>16.31</td><td>H</td><td>6.4</td><td>6.5</td><td>16.34</td><td>33.0</td><td>-16.7</td><td></td></tr> </tbody> </table> | | | | | | | | | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | Low Ch | | | | | | | | | 2498.50 | 17.56 | V | 6.0 | 5.9 | 17.53 | 33.0 | -15.5 | | 2498.50 | 16.87 | H | 6.0 | 5.9 | 16.84 | 33.0 | -16.2 | | Mid Ch | | | | | | | | | 2593.00 | 18.12 | V | 6.3 | 6.2 | 18.02 | 33.0 | -15.0 | | 2593.00 | 19.69 | H | 6.3 | 6.2 | 19.59 | 33.0 | -13.4 | | High Ch | | | | | | | | | 2687.50 | 16.07 | V | 6.4 | 6.5 | 16.10 | 33.0 | -16.9 | | 2687.50 | 16.31 | H | 6.4 | 6.5 | 16.34 | 33.0 | -16.7 | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2498.50 | 17.56 | V | 6.0 | 5.9 | 17.53 | 33.0 | -15.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2498.50 | 16.87 | H | 6.0 | 5.9 | 16.84 | 33.0 | -16.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2593.00 | 18.12 | V | 6.3 | 6.2 | 18.02 | 33.0 | -15.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2593.00 | 19.69 | H | 6.3 | 6.2 | 19.59 | 33.0 | -13.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2687.50 | 16.07 | V | 6.4 | 6.5 | 16.10 | 33.0 | -16.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2687.50 | 16.31 | H | 6.4 | 6.5 | 16.34 | 33.0 | -16.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

10.1.9. LTE Band 66

| 20MHz QPSK | | | | | | | | | | 20MHz 16QAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|-------------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---|--|--|--|--|--|--|--|--|--|-------|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|--------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|--|--|--|--|--|--|--|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|---------|-------|---|-----|-----|-------|------|-------|--|--|
| <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 66 Fundamentals, 20MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1720.00</td><td>19.11</td><td>V</td><td>6.3</td><td>5.5</td><td>19.36</td><td>30.0</td><td>-11.5</td><td></td><td></td></tr> <tr><td>1720.00</td><td>18.52</td><td>H</td><td>6.3</td><td>5.5</td><td>17.87</td><td>30.0</td><td>-12.1</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>23.22</td><td>V</td><td>6.3</td><td>5.3</td><td>22.19</td><td>30.0</td><td>-7.8</td><td></td><td></td></tr> <tr><td>1745.00</td><td>19.05</td><td>H</td><td>6.3</td><td>5.3</td><td>18.02</td><td>30.0</td><td>-12.0</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1770.00</td><td>20.01</td><td>V</td><td>6.4</td><td>5.1</td><td>18.79</td><td>30.0</td><td>-11.2</td><td></td><td></td></tr> <tr><td>1770.00</td><td>18.03</td><td>H</td><td>6.4</td><td>5.1</td><td>16.81</td><td>30.0</td><td>-13.2</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1720.00 | 19.11 | V | 6.3 | 5.5 | 19.36 | 30.0 | -11.5 | | | 1720.00 | 18.52 | H | 6.3 | 5.5 | 17.87 | 30.0 | -12.1 | | | Mid Ch | | | | | | | | | | 1745.00 | 23.22 | V | 6.3 | 5.3 | 22.19 | 30.0 | -7.8 | | | 1745.00 | 19.05 | H | 6.3 | 5.3 | 18.02 | 30.0 | -12.0 | | | High Ch | | | | | | | | | | 1770.00 | 20.01 | V | 6.4 | 5.1 | 18.79 | 30.0 | -11.2 | | | 1770.00 | 18.03 | H | 6.4 | 5.1 | 16.81 | 30.0 | -13.2 | | | <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 32990 JS Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 66 Fundamentals, 20MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1720.00</td><td>18.81</td><td>V</td><td>6.3</td><td>5.5</td><td>18.06</td><td>30.0</td><td>-11.9</td><td></td><td></td></tr> <tr><td>1720.00</td><td>18.02</td><td>H</td><td>6.3</td><td>5.5</td><td>17.27</td><td>30.0</td><td>-12.7</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>23.11</td><td>V</td><td>6.3</td><td>5.3</td><td>22.08</td><td>30.0</td><td>-7.9</td><td></td><td></td></tr> <tr><td>1745.00</td><td>18.55</td><td>H</td><td>6.3</td><td>5.3</td><td>17.52</td><td>30.0</td><td>-12.5</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1770.00</td><td>19.33</td><td>V</td><td>6.4</td><td>5.1</td><td>18.11</td><td>30.0</td><td>-11.9</td><td></td><td></td></tr> <tr><td>1770.00</td><td>17.69</td><td>H</td><td>6.4</td><td>5.1</td><td>16.47</td><td>30.0</td><td>-13.5</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1720.00 | 18.81 | V | 6.3 | 5.5 | 18.06 | 30.0 | -11.9 | | | 1720.00 | 18.02 | H | 6.3 | 5.5 | 17.27 | 30.0 | -12.7 | | | Mid Ch | | | | | | | | | | 1745.00 | 23.11 | V | 6.3 | 5.3 | 22.08 | 30.0 | -7.9 | | | 1745.00 | 18.55 | H | 6.3 | 5.3 | 17.52 | 30.0 | -12.5 | | | High Ch | | | | | | | | | | 1770.00 | 19.33 | V | 6.4 | 5.1 | 18.11 | 30.0 | -11.9 | | | 1770.00 | 17.69 | H | 6.4 | 5.1 | 16.47 | 30.0 | -13.5 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1720.00 | 19.11 | V | 6.3 | 5.5 | 19.36 | 30.0 | -11.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1720.00 | 18.52 | H | 6.3 | 5.5 | 17.87 | 30.0 | -12.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 23.22 | V | 6.3 | 5.3 | 22.19 | 30.0 | -7.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 19.05 | H | 6.3 | 5.3 | 18.02 | 30.0 | -12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1770.00 | 20.01 | V | 6.4 | 5.1 | 18.79 | 30.0 | -11.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1770.00 | 18.03 | H | 6.4 | 5.1 | 16.81 | 30.0 | -13.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1720.00 | 18.81 | V | 6.3 | 5.5 | 18.06 | 30.0 | -11.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1720.00 | 18.02 | H | 6.3 | 5.5 | 17.27 | 30.0 | -12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 23.11 | V | 6.3 | 5.3 | 22.08 | 30.0 | -7.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 18.55 | H | 6.3 | 5.3 | 17.52 | 30.0 | -12.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1770.00 | 19.33 | V | 6.4 | 5.1 | 18.11 | 30.0 | -11.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1770.00 | 17.69 | H | 6.4 | 5.1 | 16.47 | 30.0 | -13.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">15MHz QPSK</p> <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 66 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1717.50</td><td>21.29</td><td>V</td><td>6.3</td><td>5.5</td><td>20.57</td><td>30.0</td><td>-9.4</td><td></td><td></td></tr> <tr><td>1717.50</td><td>18.13</td><td>H</td><td>6.3</td><td>5.5</td><td>17.41</td><td>30.0</td><td>-12.6</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>22.81</td><td>V</td><td>6.3</td><td>5.3</td><td>21.78</td><td>30.0</td><td>-8.2</td><td></td><td></td></tr> <tr><td>1745.00</td><td>17.73</td><td>H</td><td>6.3</td><td>5.3</td><td>16.70</td><td>30.0</td><td>-13.3</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1772.50</td><td>19.56</td><td>V</td><td>6.4</td><td>5.1</td><td>18.32</td><td>30.0</td><td>-11.7</td><td></td><td></td></tr> <tr><td>1772.50</td><td>16.87</td><td>H</td><td>6.4</td><td>5.1</td><td>15.63</td><td>30.0</td><td>-14.4</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1717.50 | 21.29 | V | 6.3 | 5.5 | 20.57 | 30.0 | -9.4 | | | 1717.50 | 18.13 | H | 6.3 | 5.5 | 17.41 | 30.0 | -12.6 | | | Mid Ch | | | | | | | | | | 1745.00 | 22.81 | V | 6.3 | 5.3 | 21.78 | 30.0 | -8.2 | | | 1745.00 | 17.73 | H | 6.3 | 5.3 | 16.70 | 30.0 | -13.3 | | | High Ch | | | | | | | | | | 1772.50 | 19.56 | V | 6.4 | 5.1 | 18.32 | 30.0 | -11.7 | | | 1772.50 | 16.87 | H | 6.4 | 5.1 | 15.63 | 30.0 | -14.4 | | | <p style="text-align: center;">15MHz 16QAM</p> <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 66 Fundamentals, 15MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1717.50</td><td>20.74</td><td>V</td><td>6.3</td><td>5.5</td><td>20.02</td><td>30.0</td><td>-10.0</td><td></td><td></td></tr> <tr><td>1717.50</td><td>17.82</td><td>H</td><td>6.3</td><td>5.5</td><td>17.10</td><td>30.0</td><td>-12.9</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>22.35</td><td>V</td><td>6.3</td><td>5.3</td><td>21.32</td><td>30.0</td><td>-8.7</td><td></td><td></td></tr> <tr><td>1745.00</td><td>17.24</td><td>H</td><td>6.3</td><td>5.3</td><td>16.21</td><td>30.0</td><td>-13.8</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1772.50</td><td>19.31</td><td>V</td><td>6.4</td><td>5.1</td><td>18.07</td><td>30.0</td><td>-11.9</td><td></td><td></td></tr> <tr><td>1772.50</td><td>16.04</td><td>H</td><td>6.4</td><td>5.1</td><td>14.80</td><td>30.0</td><td>-15.2</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1717.50 | 20.74 | V | 6.3 | 5.5 | 20.02 | 30.0 | -10.0 | | | 1717.50 | 17.82 | H | 6.3 | 5.5 | 17.10 | 30.0 | -12.9 | | | Mid Ch | | | | | | | | | | 1745.00 | 22.35 | V | 6.3 | 5.3 | 21.32 | 30.0 | -8.7 | | | 1745.00 | 17.24 | H | 6.3 | 5.3 | 16.21 | 30.0 | -13.8 | | | High Ch | | | | | | | | | | 1772.50 | 19.31 | V | 6.4 | 5.1 | 18.07 | 30.0 | -11.9 | | | 1772.50 | 16.04 | H | 6.4 | 5.1 | 14.80 | 30.0 | -15.2 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1717.50 | 21.29 | V | 6.3 | 5.5 | 20.57 | 30.0 | -9.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1717.50 | 18.13 | H | 6.3 | 5.5 | 17.41 | 30.0 | -12.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 22.81 | V | 6.3 | 5.3 | 21.78 | 30.0 | -8.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 17.73 | H | 6.3 | 5.3 | 16.70 | 30.0 | -13.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1772.50 | 19.56 | V | 6.4 | 5.1 | 18.32 | 30.0 | -11.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1772.50 | 16.87 | H | 6.4 | 5.1 | 15.63 | 30.0 | -14.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1717.50 | 20.74 | V | 6.3 | 5.5 | 20.02 | 30.0 | -10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1717.50 | 17.82 | H | 6.3 | 5.5 | 17.10 | 30.0 | -12.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 22.35 | V | 6.3 | 5.3 | 21.32 | 30.0 | -8.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 17.24 | H | 6.3 | 5.3 | 16.21 | 30.0 | -13.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1772.50 | 19.31 | V | 6.4 | 5.1 | 18.07 | 30.0 | -11.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1772.50 | 16.04 | H | 6.4 | 5.1 | 14.80 | 30.0 | -15.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center;">10MHz QPSK</p> <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 66 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1715.00</td><td>21.23</td><td>V</td><td>6.3</td><td>5.6</td><td>20.53</td><td>30.0</td><td>-9.5</td><td></td><td></td></tr> <tr><td>1715.00</td><td>18.88</td><td>H</td><td>6.3</td><td>5.6</td><td>18.18</td><td>30.0</td><td>-11.8</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>22.38</td><td>V</td><td>6.3</td><td>5.3</td><td>21.35</td><td>30.0</td><td>-8.6</td><td></td><td></td></tr> <tr><td>1745.00</td><td>19.06</td><td>H</td><td>6.3</td><td>5.3</td><td>18.03</td><td>30.0</td><td>-12.0</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1775.00</td><td>20.33</td><td>V</td><td>6.4</td><td>5.1</td><td>19.07</td><td>30.0</td><td>-10.9</td><td></td><td></td></tr> <tr><td>1775.00</td><td>18.22</td><td>H</td><td>6.4</td><td>5.1</td><td>16.96</td><td>30.0</td><td>-13.0</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1715.00 | 21.23 | V | 6.3 | 5.6 | 20.53 | 30.0 | -9.5 | | | 1715.00 | 18.88 | H | 6.3 | 5.6 | 18.18 | 30.0 | -11.8 | | | Mid Ch | | | | | | | | | | 1745.00 | 22.38 | V | 6.3 | 5.3 | 21.35 | 30.0 | -8.6 | | | 1745.00 | 19.06 | H | 6.3 | 5.3 | 18.03 | 30.0 | -12.0 | | | High Ch | | | | | | | | | | 1775.00 | 20.33 | V | 6.4 | 5.1 | 19.07 | 30.0 | -10.9 | | | 1775.00 | 18.22 | H | 6.4 | 5.1 | 16.96 | 30.0 | -13.0 | | | <p style="text-align: center;">10MHz 16QAM</p> <p style="text-align: center;">UL Verification Services, Inc. High Frequency Substitution Measurement</p> <p>Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 66 Fundamentals, 10MHz Bandwidth</p> <p>Test Equipment: Receiving: Horn 200897, and 03-RDE-A SMA Cables Substitution: Horn 200785, 03-RDE-A Passthrough Cables</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBi)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1715.00</td><td>21.06</td><td>V</td><td>6.3</td><td>5.6</td><td>20.36</td><td>30.0</td><td>-9.6</td><td></td><td></td></tr> <tr><td>1715.00</td><td>18.27</td><td>H</td><td>6.3</td><td>5.6</td><td>17.57</td><td>30.0</td><td>-12.4</td><td></td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1745.00</td><td>22.08</td><td>V</td><td>6.3</td><td>5.3</td><td>21.05</td><td>30.0</td><td>-8.9</td><td></td><td></td></tr> <tr><td>1745.00</td><td>18.41</td><td>H</td><td>6.3</td><td>5.3</td><td>17.38</td><td>30.0</td><td>-12.6</td><td></td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>1775.00</td><td>19.80</td><td>V</td><td>6.4</td><td>5.1</td><td>18.54</td><td>30.0</td><td>-11.5</td><td></td><td></td></tr> <tr><td>1775.00</td><td>17.05</td><td>H</td><td>6.4</td><td>5.1</td><td>15.79</td><td>30.0</td><td>-14.2</td><td></td><td></td></tr> </tbody> </table> | | | | | | | | | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | Low Ch | | | | | | | | | | 1715.00 | 21.06 | V | 6.3 | 5.6 | 20.36 | 30.0 | -9.6 | | | 1715.00 | 18.27 | H | 6.3 | 5.6 | 17.57 | 30.0 | -12.4 | | | Mid Ch | | | | | | | | | | 1745.00 | 22.08 | V | 6.3 | 5.3 | 21.05 | 30.0 | -8.9 | | | 1745.00 | 18.41 | H | 6.3 | 5.3 | 17.38 | 30.0 | -12.6 | | | High Ch | | | | | | | | | | 1775.00 | 19.80 | V | 6.4 | 5.1 | 18.54 | 30.0 | -11.5 | | | 1775.00 | 17.05 | H | 6.4 | 5.1 | 15.79 | 30.0 | -14.2 | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1715.00 | 21.23 | V | 6.3 | 5.6 | 20.53 | 30.0 | -9.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1715.00 | 18.88 | H | 6.3 | 5.6 | 18.18 | 30.0 | -11.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 22.38 | V | 6.3 | 5.3 | 21.35 | 30.0 | -8.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 19.06 | H | 6.3 | 5.3 | 18.03 | 30.0 | -12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1775.00 | 20.33 | V | 6.4 | 5.1 | 19.07 | 30.0 | -10.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1775.00 | 18.22 | H | 6.4 | 5.1 | 16.96 | 30.0 | -13.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1715.00 | 21.06 | V | 6.3 | 5.6 | 20.36 | 30.0 | -9.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1715.00 | 18.27 | H | 6.3 | 5.6 | 17.57 | 30.0 | -12.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mid Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 22.08 | V | 6.3 | 5.3 | 21.05 | 30.0 | -8.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1745.00 | 18.41 | H | 6.3 | 5.3 | 17.38 | 30.0 | -12.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Ch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1775.00 | 19.80 | V | 6.4 | 5.1 | 18.54 | 30.0 | -11.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1775.00 | 17.05 | H | 6.4 | 5.1 | 15.79 | 30.0 | -14.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 5MHz QPSK | | | | | | | | | | 5MHz 16QAM | | | | | | | | | |
|--|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|---|------------------|-----------------|-----------------|--------------------|------------|-------------|------------|-------|--|
| UL Verification Services, Inc. | | | | | | | | | | | | | | | | | | | |
| High Frequency Substitution Measurement | | | | | | | | | | | | | | | | | | | |
| Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_QPSK Band 66 Fundamentals, 5MHz Bandwidth | | | | | | | | | | Company: Lions Project #: 14938215 (SM-A256E_DSN) Date: 10/18/2023 Test Engineer: 19019 Configuration: EUT Only Location: 03-RDE-A Mode: LTE_16QAM Band 66 Fundamentals, 5MHz Bandwidth | | | | | | | | | |
| Test Equipment | | | | | | | | | | | | | | | | | | | |
| Receiving: Horn 200897, and 03-RDE-A SMA Cables | | | | | | | | | | Receiving: Horn 200897, and 03-RDE-A SMA Cables | | | | | | | | | |
| Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | | Substitution: Horn 200785, 03-RDE-A Passthrough Cables | | | | | | | | | |
| f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | | f MHz | SG reading (dBm) | Ant. Pol. (H/V) | Cable Loss (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit (dBm) | Delta (dB) | Notes | |
| Low Ch | | | | | | | | | | Low Ch | | | | | | | | | |
| 1712.50 | 20.44 | V | 6.3 | 5.6 | 19.77 | 30.0 | -10.2 | | | 1712.50 | 20.23 | V | 6.3 | 5.6 | 19.56 | 30.0 | -10.4 | | |
| 1712.50 | 19.07 | H | 6.3 | 5.6 | 18.40 | 30.0 | -11.6 | | | 1712.50 | 18.23 | H | 6.3 | 5.6 | 17.56 | 30.0 | -12.4 | | |
| Mid Ch | | | | | | | | | | Mid Ch | | | | | | | | | |
| 1745.00 | 21.88 | V | 6.3 | 5.3 | 20.85 | 30.0 | -9.1 | | | 1745.00 | 21.42 | V | 6.3 | 5.3 | 20.39 | 30.0 | -9.6 | | |
| 1745.00 | 19.38 | H | 6.3 | 5.3 | 18.35 | 30.0 | -11.6 | | | 1745.00 | 18.73 | H | 6.3 | 5.3 | 17.70 | 30.0 | -12.3 | | |
| High Ch | | | | | | | | | | High Ch | | | | | | | | | |
| 1777.50 | 20.84 | V | 6.4 | 5.1 | 19.56 | 30.0 | -10.4 | | | 1777.50 | 19.39 | V | 6.4 | 5.1 | 18.11 | 30.0 | -11.9 | | |
| 1777.50 | 16.39 | H | 6.4 | 5.1 | 15.11 | 30.0 | -14.9 | | | 1777.50 | 15.29 | H | 6.4 | 5.1 | 14.01 | 30.0 | -16.0 | | |