



Engineering and Testing for EMC and Safety Compliance

### Unintentional Emissions (digital/receive)

| Temperature: 59°F Humidity: 90% |               |                        |                         |                    |                         |                               |                         |                |             |           |
|---------------------------------|---------------|------------------------|-------------------------|--------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|-----------|
| Emission Frequency (MHz)        | Test Detector | Antenna Polarity (H/V) | Turntable Azimuth (deg) | Antenna Height (m) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pass/Fail |
| 60.00                           | Qp            | H                      | 90                      | 2.0                | 38.2                    | -23.0                         | 15.2                    | 40.0           | -24.8       | Pass      |
| 120.00                          | Qp            | H                      | 90                      | 2.0                | 37.9                    | -16.4                         | 21.5                    | 43.5           | -22.0       | Pass      |
| 348.00                          | Qp            | H                      | 90                      | 2.0                | 29.6                    | -11.6                         | 18.0                    | 46.0           | -28.0       | Pass      |
| 360.00                          | Qp            | H                      | 90                      | 2.0                | 31.3                    | -11.0                         | 20.3                    | 46.0           | -25.7       | Pass      |
| 372.00                          | Qp            | H                      | 90                      | 2.0                | 29.7                    | -11.2                         | 18.5                    | 46.0           | -27.5       | Pass      |
| 440.73                          | Qp            | H                      | 90                      | 1.6                | 53.4                    | -9.0                          | 44.4                    | 46.0           | -1.6        | Pass      |

### Fundamental Measurements

| Emission Frequency (MHz) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Pass/Fail | Comments                 |
|--------------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|-----------|--------------------------|
| 451.4                    | 108.0                   | -8.9                          | 99.1                    | 101.4          | -2.3        | Pass      | #1 from strap antenna    |
| 451.4                    | 109.9                   | -8.9                          | 101.0                   | 101.4          | -0.4        | Pass      | #2 from internal antenna |
| 439.2                    | 104.2                   | -9.0                          | 95.2                    | 101.4          | -6.2        | Pass      | #3 from strap antenna    |
| 439.2                    | 102.6                   | -9.0                          | 93.6                    | 101.4          | -7.8        | Pass      | #4 from internal antenna |

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### Intentional Radiated Emissions (spurious/harmonics)

#1 (451.4 MHz)

| Emission Frequency (MHz) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|--------------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|
| 902.8                    | 69.7                    | -1.1                          | 68.6                    | 81.4           | -12.8       |
| 1354.2                   | 68.9                    | -3.2                          | 65.7                    | 74.0           | -8.3        |
| 1805.6                   | 50.2                    | 9.2                           | 59.4                    | 81.4           | -22.0       |
| 2257.0                   | 40.7                    | -5.1                          | 35.6                    | 74.0           | -38.4       |
| 2708.4                   | 31.0                    | -5.1                          | 25.9                    | 74.0           | -48.1       |
| 3159.8                   | 32.1                    | -4.8                          | 27.3                    | 81.4           | -54.1       |
| 3611.2                   | 27.9                    | -4.4                          | 23.5                    | 74.0           | -50.5       |
| 4062.6                   | 29.4                    | 1.8                           | 31.2                    | 74.0           | -42.8       |
| 4514.0                   | 30.4                    | 2.0                           | 32.4                    | 74.0           | -41.6       |

#2 (451.4 MHz)

| Emission Frequency (MHz) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|--------------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|
| 902.8                    | 77.4                    | -1.1                          | 76.3                    | 81.4           | -5.1        |
| 1354.2                   | 63.1                    | 5.5                           | 68.6                    | 74.0           | -5.4        |
| 1805.6                   | 48.6                    | 9.2                           | 57.8                    | 81.4           | -23.6       |
| 2257.0                   | 36.5                    | -5.1                          | 31.4                    | 74.0           | -42.6       |
| 2708.4                   | 29.7                    | -5.1                          | 24.6                    | 74.0           | -49.4       |
| 3159.8                   | 36.7                    | -4.8                          | 31.9                    | 81.4           | -49.5       |
| 3611.2                   | 33.5                    | -4.4                          | 29.1                    | 74.0           | -44.9       |
| 4062.6                   | 31.4                    | 1.8                           | 33.2                    | 74.0           | -40.8       |
| 4514.0                   | 31.5                    | 2.0                           | 33.5                    | 74.0           | -40.5       |

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#3 (439.2 MHz)

| Emission Frequency (MHz) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|--------------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|
| 878.4                    | 69.0                    | -1.6                          | 67.4                    | 81.4           | -14.0       |
| 1317.6                   | 53.7                    | 4.9                           | 58.6                    | 74.0           | -15.4       |
| 1756.8                   | 48.0                    | 8.5                           | 56.5                    | 81.4           | -24.9       |
| 2196.0                   | 34.9                    | -5.2                          | 29.7                    | 81.4           | -51.7       |
| 2635.2                   | 29.2                    | -5.3                          | 23.9                    | 81.4           | -57.5       |
| 3074.4                   | 34.1                    | -4.3                          | 29.8                    | 81.4           | -51.6       |
| 3513.6                   | 27.7                    | -5.0                          | 22.7                    | 81.4           | -58.7       |
| 3952.8                   | 31.2                    | -4.5                          | 26.7                    | 74.0           | -47.3       |
| 4392.0                   | 29.3                    | 1.8                           | 31.1                    | 74.0           | -42.9       |

#4 (439.2 MHz)

| Emission Frequency (MHz) | Analyzer Reading (dBuV) | Site Correction Factor (dB/m) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|--------------------------|-------------------------|-------------------------------|-------------------------|----------------|-------------|
| 878.4                    | 62.5                    | -1.6                          | 60.9                    | 81.4           | -20.5       |
| 1317.6                   | 49.2                    | 4.9                           | 54.1                    | 74.0           | -19.9       |
| 1756.8                   | 47.6                    | 8.5                           | 56.1                    | 81.4           | -25.3       |
| 2196.0                   | 36.9                    | -5.2                          | 31.7                    | 81.4           | -49.7       |
| 2635.2                   | 29.6                    | -5.3                          | 24.3                    | 81.4           | -57.1       |
| 3074.4                   | 32.5                    | -4.3                          | 28.2                    | 81.4           | -53.2       |
| 3513.6                   | 28.2                    | -5.0                          | 23.2                    | 81.4           | -58.2       |
| 3952.8                   | 30.4                    | -4.5                          | 25.9                    | 74.0           | -48.1       |
| 4392.0                   | 29.3                    | 1.8                           | 31.1                    | 74.0           | -42.9       |

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