

**Power Density Based on** 20 separation distance (cm)

|      |                        |
|------|------------------------|
| 2402 | Frequency (MHz)        |
| 2.18 | Power to Antenna (dBm) |
| 1.3  | Antenna gain (dBi)     |

## FCC

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure         |                               |                               |                                     |                          |
| 0.3-3.0                                                 | 614                           | 1.63                          | *100                                | 6                        |
| 3.0-30                                                  | 1842/f                        | 4.89/f                        | *900/f <sup>2</sup>                 | 6                        |
| 30-300                                                  | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1,500                                               |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                           |                               |                               | 5                                   | 6                        |
| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                          |
| 0.3-1.34                                                | 614                           | 1.63                          | *100                                | 30                       |
| 1.34-30                                                 | 824/f                         | 2.19/f                        | *180/f <sup>2</sup>                 | 30                       |
| 30-300                                                  | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1,500                                               |                               |                               | f/1500                              | 30                       |
| 1,500-100,000                                           |                               |                               | 1.0                                 | 30                       |

**0.000**  
Power Density (mW/cm<sup>2</sup>)

| Canada | FCC   |                             |
|--------|-------|-----------------------------|
| 0.535  | 1     | Limit (mW/cm <sup>2</sup> ) |
| 0.535  | 1.000 | Margin                      |
| 0.001  | 0.000 | MPE Ratio                   |

(General Population)

## Canada

| Frequency Range (MHz)                                                                                                   | Electric Field (V/m rms)  | Magnetic Field (A/m rms)                 | Power Density (W/m <sup>2</sup> ) | Reference Period (minutes) |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------------------------|----------------------------|
| 0.003-10 <sup>21</sup>                                                                                                  | 83                        | 90                                       | -                                 | Instantaneous*             |
| 0.1-10                                                                                                                  | -                         | 0.73/ f                                  | -                                 | 6**                        |
| 1.1-10                                                                                                                  | 87/ f <sup>0.5</sup>      | -                                        | -                                 | 6**                        |
| 10-20                                                                                                                   | 27.46                     | 0.0728                                   | 2                                 | 6                          |
| 20-48                                                                                                                   | 58.07/ f <sup>0.25</sup>  | 0.1540/ f <sup>0.25</sup>                | 8.944/ f <sup>0.5</sup>           | 6                          |
| 48-300                                                                                                                  | 22.06                     | 0.05852                                  | 1.291                             | 6                          |
| 300-6000                                                                                                                | 3.142 f <sup>0.3417</sup> | 0.008335 f <sup>0.3417</sup>             | 0.02619 f <sup>0.6834</sup>       | 6                          |
| 6000-15000                                                                                                              | 61.4                      | 0.163                                    | 10                                | 6                          |
| 15000-150000                                                                                                            | 61.4                      | 0.163                                    | 10                                | 616000/ f <sup>1.2</sup>   |
| 150000-300000                                                                                                           | 0.158 f <sup>0.5</sup>    | 4.21 x 10 <sup>-4</sup> f <sup>0.5</sup> | 6.67 x 10 <sup>-5</sup> f         | 616000/ f <sup>1.2</sup>   |
| <b>Note:</b> f is frequency in MHz.<br>*Based on nerve stimulation (NS).<br>** Based on specific absorption rate (SAR). |                           |                                          |                                   |                            |

**Power Density Based on** 20 separation distance (cm)

|       |                        |
|-------|------------------------|
| 2437  | Frequency (MHz)        |
| 17.73 | Power to Antenna (dBm) |
| 1.5   | Antenna gain (dBi)     |

## FCC

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure         |                               |                               |                                     |                          |
| 0.3-3.0                                                 | 614                           | 1.63                          | *100                                | 6                        |
| 3.0-30                                                  | 1842/f                        | 4.89/f                        | *900/f <sup>2</sup>                 | 6                        |
| 30-300                                                  | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1,500                                               |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                           |                               |                               | 5                                   | 6                        |
| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                          |
| 0.3-1.34                                                | 614                           | 1.63                          | *100                                | 30                       |
| 1.34-30                                                 | 824/f                         | 2.19/f                        | *180/f <sup>2</sup>                 | 30                       |
| 30-300                                                  | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1,500                                               |                               |                               | f/1500                              | 30                       |
| 1,500-100,000                                           |                               |                               | 1.0                                 | 30                       |

**0.017**  
Power Density (mW/cm<sup>2</sup>)

| Canada | FCC   |                             |
|--------|-------|-----------------------------|
| 0.540  | 1     | Limit (mW/cm <sup>2</sup> ) |
| 0.524  | 0.983 | Margin                      |
| 0.031  | 0.017 | MPE Ratio                   |

(General Population)

## Canada

| Frequency Range (MHz)                                                                                                   | Electric Field (V/m rms)  | Magnetic Field (A/m rms)                 | Power Density (W/m <sup>2</sup> ) | Reference Period (minutes) |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------------------------|----------------------------|
| 0.003-10 <sup>21</sup>                                                                                                  | 83                        | 90                                       | -                                 | Instantaneous*             |
| 0.1-10                                                                                                                  | -                         | 0.73/ f                                  | -                                 | 6**                        |
| 1.1-10                                                                                                                  | 87/ f <sup>0.5</sup>      | -                                        | -                                 | 6**                        |
| 10-20                                                                                                                   | 27.46                     | 0.0728                                   | 2                                 | 6                          |
| 20-48                                                                                                                   | 58.07/ f <sup>0.25</sup>  | 0.1540/ f <sup>0.25</sup>                | 8.944/ f <sup>0.5</sup>           | 6                          |
| 48-300                                                                                                                  | 22.06                     | 0.05852                                  | 1.291                             | 6                          |
| 300-6000                                                                                                                | 3.142 f <sup>0.3417</sup> | 0.008335 f <sup>0.3417</sup>             | 0.02619 f <sup>0.6834</sup>       | 6                          |
| 6000-15000                                                                                                              | 61.4                      | 0.163                                    | 10                                | 6                          |
| 15000-150000                                                                                                            | 61.4                      | 0.163                                    | 10                                | 616000/ f <sup>1.2</sup>   |
| 150000-300000                                                                                                           | 0.158 f <sup>0.5</sup>    | 4.21 x 10 <sup>-4</sup> f <sup>0.5</sup> | 6.67 x 10 <sup>-5</sup> f         | 616000/ f <sup>1.2</sup>   |
| <b>Note:</b> f is frequency in MHz.<br>*Based on nerve stimulation (NS).<br>** Based on specific absorption rate (SAR). |                           |                                          |                                   |                            |

|          |           |                        |
|----------|-----------|------------------------|
| 0.000443 | Ratio 1   | Device 1               |
| 0.016662 | Ratio 2   | Device 2               |
|          | Ratio 3   |                        |
| 0.017105 | Total     | Ratio Must be $\leq 1$ |
| 0.982895 | Remaining |                        |

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is  $\leq 1.0$ , according to calculated/estimated, numerically modeled, or measured field strengths or power density.

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