

10.MPE ESTIMATION

10.1.Limit for General Population/ Uncontrolled Exposures

| Frequency | Power density (mW/ cm ²) | Averaging time(minutes) |
|------------------|--------------------------------------|-------------------------|
| 300MHz----1.5GHz | F/1500 | 30 |
| 1.5GHz---100GHz | 1.0 | 30 |

| Frequency(MHz) | Power density (mW/ cm ²) | Averaging time(minutes) |
|----------------|--------------------------------------|-------------------------|
| 2412 | 1 | 30 |
| 2437 | 1 | 30 |
| 2462 | 1 | 30 |

Note: F= Frequency in MHz Estimation Result

5MHz

| | | |
|---------------------------------------|-------------------------|----------------------|
| EUT: 2.4GHz 300Mbps 12dBi Outdoor CPE | | |
| M/N: CPE220 | | |
| Test date: 2015-02-12 | Pressure: 101.4±1.0 kpa | Humidity: 50.1±3.0% |
| Tested by: Donjon_Huang | Test site: RF site | Temperature:20.5±0.6 |

| Test Mode | CH | Frequency (MHz) | Peak Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Linear) | MPE |
|-----------|------|-------------------|-------------------------|-------------------|--------------------|-----------------------|--------|
| 11b | CH1 | 2412 | 22.17 | 164.82 | 12 | 15.85 | 0.2311 |
| | CH6 | 2437 | 22.20 | 165.96 | 12 | 15.85 | 0.2327 |
| | CH11 | 2462 | 22.14 | 163.68 | 12 | 15.85 | 0.2295 |
| 11g | CH1 | 2412 | 23.57 | 227.51 | 12 | 15.85 | 0.3190 |
| | CH6 | 2437 | 23.56 | 226.99 | 12 | 15.85 | 0.3182 |
| | CH11 | 2462 | 23.59 | 228.56 | 12 | 15.85 | 0.3205 |
| 11n HT20 | CH1 | 2412 | 24.06 | 254.68 | 12 | 15.85 | 0.3571 |
| | CH6 | 2437 | 24.07 | 255.27 | 12 | 15.85 | 0.3579 |
| | CH11 | 2462 | 24.13 | 258.82 | 12 | 15.85 | 0.3629 |

10MHz

| | | |
|---------------------------------------|-------------------------|----------------------|
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| Tested by: Donjon_Huang | Test site: RF site | Temperature:20.5±0.6 |

| Test Mode | CH | Frequency (MHz) | Peak Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Linear) | MPE |
|-----------|------|-------------------|-------------------------|-------------------|--------------------|-----------------------|--------|
| 11b | CH1 | 2412 | 24.64 | 291.07 | 12 | 15.85 | 0.4081 |
| | CH6 | 2437 | 25.32 | 340.41 | 12 | 15.85 | 0.4773 |
| | CH11 | 2462 | 24.62 | 289.73 | 12 | 15.85 | 0.4062 |
| 11g | CH1 | 2412 | 26.60 | 457.09 | 12 | 15.85 | 0.6409 |
| | CH6 | 2437 | 27.34 | 542.00 | 12 | 15.85 | 0.7599 |
| | CH11 | 2462 | 26.61 | 458.14 | 12 | 15.85 | 0.6423 |
| 11n HT20 | CH1 | 2412 | 26.63 | 460.26 | 12 | 15.85 | 0.6453 |
| | CH6 | 2437 | 27.13 | 516.42 | 12 | 15.85 | 0.7240 |
| | CH11 | 2462 | 26.52 | 448.75 | 12 | 15.85 | 0.6292 |

20MHz

| | | |
|---------------------------------------|-------------------------|----------------------|
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| Tested by: Donjon_Huang | Test site: RF site | Temperature:20.5±0.6 |

| Test Mode | CH | Frequency (MHz) | Peak Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Linear) | MPE |
|-----------|------|-------------------|-------------------------|-------------------|--------------------|-----------------------|--------|
| 11b | CH1 | 2412 | 24.71 | 295.80 | 12 | 15.85 | 0.4147 |
| | CH6 | 2437 | 25.26 | 335.74 | 12 | 15.85 | 0.4707 |
| | CH11 | 2462 | 24.05 | 254.10 | 12 | 15.85 | 0.3563 |
| 11g | CH1 | 2412 | 26.58 | 454.99 | 12 | 15.85 | 0.6379 |
| | CH6 | 2437 | 27.28 | 534.56 | 12 | 15.85 | 0.7495 |
| | CH11 | 2462 | 26.59 | 456.04 | 12 | 15.85 | 0.6394 |
| 11n HT20 | CH1 | 2412 | 26.65 | 462.38 | 12 | 15.85 | 0.6483 |
| | CH6 | 2437 | 27.09 | 511.68 | 12 | 15.85 | 0.7174 |
| | CH11 | 2462 | 26.45 | 441.57 | 12 | 15.85 | 0.6191 |
| 11n HT40 | CH3 | 2422 | 20.50 | 112.20 | 12 | 15.85 | 0.1573 |
| | CH6 | 2437 | 27.28 | 534.56 | 12 | 15.85 | 0.7495 |
| | CH9 | 2452 | 21.55 | 142.89 | 12 | 15.85 | 0.2003 |

$$MPE = \frac{PG}{4\pi R^2} \quad (R=30cm)$$