MPE ESTIMATION
FCC ID: 2ALUI-HELLO

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 |

Note: F= Frequency in MHz

## 2, Estimation Result

## For antenna 1-5G WIFI:

| Mode | Max PK Output power(dBm) | Tune Up Power(dBm) | Max Tune Up power(mW) | Antenna Gain(dBi) | Antenna Gain (linear) | MPE ($mW/cm^2$) |
|---|---|---|---|---|---|---|
| 11a | 16.93 | 16±1(17) | 50.11 | 2 | 1.585 | 0.0158 |
| 11n/HT20 | 16.82 | 16±1(17) | 50.11 | 2 | 1.585 | 0.0158 |
| 11n/HT40 | 16.57 | 16±1(17) | 50.11 | 2 | 1.585 | 0.0158 |
| 11ac | 15.73 | 16±1(17) | 50.11 | 2 | 1.585 | 0.0158 |
| Note: $Pd = \frac{Pout * G}{4\pi r^2}$; | | | | | | |
| Note: The estimation distance is 20cm | | | | | | |
| Note:<br>PK Output power= conducted power.<br>Conducted power see the test report UNI170405086-E, antenna gain=2dBi. | | | | | | |

## For antenna 2-2.4G WIFI:

| Mode | Max PK Output power(dBm) | Tune Up Power(dBm) | Max Tune Up power(mW) | Antenna Gain(dBi) | Antenna Gain (linear) | MPE (mW/cm²) |
|---|---|---|---|---|---|---|
| 11b | 12.32 | 12±1(13) | 19.95 | 2 | 1.585 | 0.00629 |
| 11g | 11.87 | 12±1(13) | 19.95 | 2 | 1.585 | 0.00629 |
| 11n/HT20 | 10.82 | 10±1(11) | 12.59 | 2 | 1.585 | 0.00397 |
| 11n/HT40 | 8.27 | 8±1(9) | 7.94 | 2 | 1.585 | 0.00250 |
| Note: $Pd = \frac{Pout * G}{4\pi r^2}$; | | | | | | |
| Note: The estimation distance is 20cm | | | | | | |
| Note: PK Output power= conducted power.<br>Conducted power see the test report UNI170405085-E, antenna gain=2dBi. | | | | | | |

**5G WIFI:**

| Mode | CH | PK Output power(dBm) | Output power(mW) | Antenna Gain(dBi) | Antenna Gain (linear) | MPE (mW/cm²) |
|---|---|---|---|---|---|---|
| 11a | CH36 | 16.81 | 47.97 | 2 | 1.585 | 0.0151 |
| | CH40 | 16.87 | 48.64 | 2 | 1.585 | 0.0153 |
| | CH48 | 16.93 | 49.32 | 2 | 1.585 | 0.0156 |
| 11n/HT20 | CH36 | 16.69 | 46.67 | 2 | 1.585 | 0.0147 |
| | CH40 | 16.72 | 46.99 | 2 | 1.585 | 0.0148 |
| | CH48 | 16.82 | 48.08 | 2 | 1.585 | 0.0152 |
| 11n/HT40 | CH38 | 16.46 | 44.26 | 2 | 1.585 | 0.0140 |
| | CH46 | 16.57 | 45.39 | 2 | 1.585 | 0.0143 |
| 11ac | CH42 | 15.73 | 37.41 | 2 | 1.585 | 0.0118 |
| Note: $Pd = \frac{Pout * G}{4\pi r^2}$; | | | | | | |
| Note: The estimation distance is 20cm | | | | | | |
| Note:<br>PK Output power= conducted power.<br>Conducted power see the test report UNI170405086-E, antenna gain=2dB. | | | | | | |

## 2.4G WIFI:

| Mode | CH | PK Output power(dBm) | Output power(mW) | Antenna Gain(dBi) | Antenna Gain (linear) | MPE (mW/cm²) |
|---|---|---|---|---|---|---|
| 11b | CH1 | 12.32 | 17.06 | 2 | 1.585 | 0.00538 |
| | CH6 | 12.21 | 16.63 | 2 | 1.585 | 0.00524 |
| | CH11 | 12.07 | 16.11 | 2 | 1.585 | 0.00508 |
| 11g | CH1 | 11.87 | 15.38 | 2 | 1.585 | 0.00485 |
| | CH6 | 11.23 | 13.27 | 2 | 1.585 | 0.00418 |
| | CH11 | 11.42 | 13.87 | 2 | 1.585 | 0.00437 |
| 11n/HT20 | CH1 | 10.82 | 12.08 | 2 | 1.585 | 0.00381 |
| | CH6 | 10.27 | 10.64 | 2 | 1.585 | 0.00336 |
| | CH11 | 10.64 | 11.59 | 2 | 1.585 | 0.00366 |
| 11n/HT40 | CH3 | 8.27 | 6.71 | 2 | 1.585 | 0.00212 |
| | CH6 | 8.16 | 6.55 | 2 | 1.585 | 0.00207 |
| | CH9 | 8.05 | 6.38 | 2 | 1.585 | 0.00201 |
| Note: $Pd = \frac{Pout * G}{4\pi r^2}$ ; | | | | | | |
| Note: The estimation distance is 20cm | | | | | | |
| Note: PK Output power= conducted power.<br>Conducted power see the test report UNI170405085-E, antenna gain=2dBi. | | | | | | |

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