

FCC ID: OVFKWC-KPC650 IC: 3572A-KPC650

KPC650 MPE Distance Calculations

1 **General Information**

| FCC ID: | OVFKWC-KPC650 | IC: | 3572A-KPC650 | | |
|----------------------|--|-----|--------------|--|--|
| Applicant: | Kyocera Wireless Corporation 10300 Campus Point Drive San Diego, CA 92121-1522 | | | | |
| Original Grant Date: | September 29, 2004 | | | | |

2 **MPE Equation and Limits**

Limits for General Population/Uncontrolled Exposure:

| Frequency Range (MHz) | Electric Field Strength, E (V/m) | Magnetic Field Strength, H (A/m) | Power Density, S (mW/cm²) | Averaging Time $ E ^2$, $ H ^2$ or S (minutes) |
|--------------------------|-------------------------------------|-------------------------------------|------------------------------|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | | | f/1500 | 30 |
| 1500-100,000 | | | 1.0 | 30 |

f = frequency in MHz *Plane-wave equivalent power density

MPE power density level can be calculated by the following equation (1):

$$P_d = \frac{P_t G_t}{4\pi R^2} \tag{1}$$

= Power Density in appropriate units, e.g.mW/cm² Where P_d $P_t G_t$

= EIRP in Watts

= distance from antenna to body in meter (= 0.2 for mobile application)



FCC ID: **OVFKWC-KPC650** IC: **3572A-KPC650**

3 KPC650 MPE Calculations

Based on the FCC OET Bulletin 65 Supplement C and 47 CFR §2.1091, it has been calculated that the KPC650 will comply with the FCC rules on RF exposure for mobile devices when used with an antenna system gain (antenna gain + connecting cable loss) not to exceed 6.0 dBi in both the cellular and PCS bands.

| Frequency (MHz) | Pt (mW) | Gt (dBi) | R (cm) | Pd | MPE Limit | Result |
|-----------------|---------|----------|--------|-------|------------------|--------|
| 824.70 | 261.22 | 6.0 | 20.0 | 0.312 | 0.550 | Pass |
| 836.52 | 264.24 | 6.0 | 20.0 | 0.315 | 0.558 | Pass |
| 848.31 | 258.23 | 6.0 | 20.0 | 0.308 | 0.566 | Pass |
| 1851.25 | 250.03 | 6.0 | 20.0 | 0.298 | 1.000 | Pass |
| 1880.00 | 255.86 | 6.0 | 20.0 | 0.305 | 1.000 | Pass |
| 1908.75 | 239.88 | 6.0 | 20.0 | 0.286 | 1.000 | Pass |