CELLPHONE-MATE, INC.
PROJECT #: 03U2456

CDMA:

5dBi Antenna Gain:

Formula used in the MPE Calculations:

E^2/3770 = S, mW/cm2
Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5 --------- (A)

Since
S (mW/cm2) = 1.00 from 1.1310 Table 1
PG (dBm) = 24.8 EUT output power EIRP

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 4.9cm

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less

3.5dBi Antenna Gain:

Formula used in the MPE Calculations:

E^2/3770 = S, mW/cm2
Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5 --------- (A)

Since
S (mW/cm2) = 1.00 from 1.1310 Table 1
PG (dBm) = 29.3 EUT output power EIRP

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 8.2cm

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less

GSM:

5dBi Antenna Gain:

Formula used in the MPE Calculations:

E^2/3770 = S, mW/cm2
Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5 --------- (A)

Since
S (mW/cm2) = 1.00 from 1.1310 Table 1
PG (dBm) = 23.7 EUT output power EIRP

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 4.3cm

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less

3.5dBi Antenna Gain:

Formula used in the MPE Calculations:

E^2/3770 = S, mW/cm2
Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)
E, V/m = (Pwatts*Ggain*30)^.5/d, meters
d = ((Pwatts*G*30)/3770*S))^0.5 --------- (A)

Since
S (mW/cm2) = 1.00 from 1.1310 Table 1
PG (dBm) = 26.3 EUT output power EIRP

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 5.8cm

NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less