APPLICANT: LGC
FCC ID: NOODAS819A-4

MPE CALCULATION FOR 3 dBi ANTENNA AT 800M BAND

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) =0.50 from 1.1310 Table 1
P (dBm) = 20.30 EUT output power
G (dBi) = 3.00 EUT antenna gain

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 5.83

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

MPE CALCULATION FOR 3 dBi ANTENNA AT 1900M BAND

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
P (dBm) = 20.96 EUT output power
G (dBi) = 3.00 EUT antenna gain

Substitute these parameters into the A above, we have
MPE safe distance d (cm) = 4.45

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