Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at the antenna terminal:	19.45	(dBm)
Maximum peak output power at the antenna terminal:	88.1048873	(mW)
Antenna gain(typical):	4.55	(dBi)
Maximum antenna gain:	2.851018268	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	902.7	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.6018	(mW/cm^2)
Power density at prediction frequency:	0.049972	(mW/cm^2)
	0.499723928	W/m^2

Therefore device complies with FCC RF radiation exposure limits
for general population in mobile exposure category (distance > 20cm)