MPE Calculations

Formula

$S=PG/4\pi R^2$ Where S is power density in mW/cm
P is the transmit power in mW at the antenna
G is the gain of the antenna in dimensionless units
R is the distance in cm to the antenna.

For mobile devices in **GENERAL POPULATION / UNCONTROLLED EXPOSURE** the power density limit is 1 mW/cm^2

Therefore the MPE limit is $MPE=\sqrt{PG/4\pi S}$

MPE calculation.

P= 60 mW * 0.72 source based averaging. = 43.2 mW
G= 1.8 dBi = 1.51 dimensionless
S= 1 mW/cm^2
EIRP = 65 mW

$MPE=\sqrt{43.2 * 1.51 / 4\pi}$ = 2.28 cm