MPE CALCULATION

MPE Limit Calculation: EUT's operating frequencies @ 5150-5250 MHz; highest conducted power = 16.5 dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm^2 or 10 W/m^2**

EUT maximum antenna gain = 5 dBi.

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

EUT with 5dBi Antenna

$S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

where, S = Power Density (1 mW/cm^2)
P = Power Input to antenna (44.66mW)
G = Antenna Gain (3.16 numeric)

$S = (141.12/4*3.14*20^2) = (141.12/5024)$ = **0.02 mW/cm^2**

MPE Limit Calculation: EUT's operating frequencies @ 5250-5350 MHz, 5470-5725 MHz; highest conducted power = 23.9 dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm^2 or 10 W/m^2**

EUT maximum antenna gain = 5 dBi.

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

EUT with 5dBi Antenna

$S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

where, S = Power Density (1 mW/cm^2)
P = Power Input to antenna (245.4mW)
G = Antenna Gain (3.16 numeric)

$S = (775.4/4*3.14*20^2) = (775.4/5024)$ = **0.15 mW/cm^2**