RF exposure

According to FCC part 1.1310 : The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in § 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength(V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Average time
(A) Limits for Occupational / Control Exposures				
300 – 1 500	--	--	f/300	6
1 500 - 100000	--	--	5	6
(B) Limits for General Population / Uncontrol Exposures				
300 – 1 500	--	--	f/1500	30
1 500 – 100 000	--	--	1	30

f= frequency in MHz

$Pd = EIRP/4 \times pi \times R^2$
$EIRP = \text{Field strength}+20Log(D)-104.8$
  Where,
  Pd = power density in mW/cm²
  EIRP = Equivalent Isotropic Radiated Power
  Pi = 3.1416
  R = distance between observation point and center of the radiator in cm
  D = Measured distance in m

Results

Frequency (MHz)	Field strength (dBuV/m)	EIRP (dBm)	Pd cm(mW/cm²)	Limit (mW/cm²)
917.1	90.56	-4.70	0.000067	0.6
920.3	90.55	-4.71	0.000067	0.6
923.3	90.42	-4.84	0.000065	0.6

Result: The power density does NOT exceed the limit