## 3.6   RF Exposure Calculation, FCC 15.247(b)(5)

The RF Exposure calculations are based on manufacturer specification that minimum distance from the antenna to operator (user) is 20cm.
The RF Exposure can be calculated according to equation from OET Bulletin 65, Edition 97-01:

$S = PG/4*pi*R^2$,

Where: S is Limits for Maximum Permissive Exposure (MPE) (mW/cm$^2$),
   P is Maximum Peak Power to Antenna (mW),
   G is Antenna Gain (numerical gain),
   R is Distance to the antenna radiation center (cm), must be below 20cm (FCC 2.1093)

   $S = (F/1500)$mW/cm$^2$ according to FCC 1.1310,  where F (in MHz) from 300 to 1500MHz
   $S = 902/1500 = 0.6$ mW/cm$^2$
   $P = 9.36$dBm $= 8.63$mW,
   G1 $= 0.71$dBi $= 1.18$ (numerical gain) – for Machine Mounted transmitter,
   G2 $= 1.8$dBi $= 1.51$ (numerical gain) – for Handheld transmitter

   R1 is calculated and $= 1.2$cm, within 20 cm – for Machine Mounted transmitter.

   R2 is calculated and $= 1.3$cm, within 20 cm – for Handheld transmitter.