Maximum Public Exposure to RF (MPE) CFR 15.247 (i)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 1 mW/cm^2 at a distance, d, of 20 cm from the EUT.

Therefore, for:

Antenna 1- MICA/PCB

Peak Power (Watts) = 0.094 (from Table 13 of Test Report)

Gain of Transmit Antenna = 1.9 dB_i = 1.549, numeric (from Table 4 of Test Report)

d = Distance = 20 cm = 0.2 m

S = (PG/ $4\pi d^2$) = EIRP/4A = 0.094 (1.549)/4*π*0.2*0.2
=0.1456/0.503 = 0.2895 w/m^2
= (0.2895 W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.02895 mW/cm^2

which is << less than 1 mW/cm^2

Antenna 2- Monopole

Peak Power (Watts) = 0.094 (from Table 13 of Test Report)

Gain of Transmit Antenna = 5.0 dB_i = 3.162, numeric (from Table 4 of Test Report)

d = Distance = 20 cm = 0.2 m

S = (PG/ $4\pi d^2$) = EIRP/4A = 0.094 (3.162)/4*π*0.2*0.2
=0.2972/0.503 = 0.5909 w/m^2
= (0.5909 W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.05909 mW/cm^2

which is << less than 1 mW/cm^2

Antenna 3-Integral Dipole

Peak Power (Watts) = 0.094 (from Table 13 of Test Report)

Gain of Transmit Antenna = 2.0 dB_i = 1.585, numeric (from Table 4 of Test Report)

d = Distance = 20 cm = 0.2 m

S = (PG/ $4\pi d^2$) = EIRP/4A = 0.094 (1.585)/4*π*0.2*0.2
=0.1490/0.503 = 0.2962 w/m^2
= (0.2960 W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.02960 mW/cm^2

which is << less than 1 mW/cm^2