Maximum Public Exposure to RF (MPE)

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:

Measured maximum output power: 17.71 dBm

Highest Gain Chip Antenna = 1.7 dBi

Peak Power (Watts) = .05902 (Manufacturer's claimed highest output power)
Gain of Transmit Antenna = 1.7 dB_i = 1.48, numeric (from Table 4 of Test Report)
d = Distance = 20 cm = 0.2 m

$S = (PG/ 4\pi d^2) = EIRP/4A = (.05902*1.48)/4*\pi*0.2*0.2$
$= .0873/.5024 = .1738$ W/m^2
$= (W/m^2) (1m^2/W) (0.1$ mW/cm$^2)$
$= 0.0174$ mW/cm^2

which is < less than 1.0 mW/cm^2

Highest Gain Patch Antenna = 12 dBi

Peak Power (Watts) = .05902 (Manufacturer's claimed highest output power)
Gain of Transmit Antenna = 12 dB_i = 15.849, numeric (from Table 4 of Test Report)
d = Distance = 20 cm = 0.2 m

$S = (PG/ 4\pi d^2) = EIRP/4A = (.05902*15.849)/4*\pi*0.2*0.2$
$= .9354/.5024 = 1.8619$ W/m^2
$= (W/m^2) (1m^2/W) (0.1$ mW/cm$^2)$
$= .18619$ mW/cm^2

which is < less than 1.0 mW/cm^2

Highest Gain Omni Antenna = 12 dBi

Peak Power (Watts) = .05902 (Manufacturer's claimed highest output power)
Gain of Transmit Antenna = 12 dB_i = 15.849, numeric (from Table 4 of Test Report)
d = Distance = 20 cm = 0.2 m

$S = (PG/ 4\pi d^2) = EIRP/4A = (.05902*15.849)/4*\pi*0.2*0.2$
$= .9354/.5024 = 1.8619\ W/m^2$
$= (W/m^2)\ (1m^2/W)\ (0.1\ mW/cm^2)$
$= .18619\ mW/cm^2$

which is < less than $1.0\ mW/cm^2$