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:
2.4 GHz WIFI:

Highest Gain Chip Antenna= 1.4 dBi

Peak Power (Watts) = 0.063 (from UST Test Report 15.108.9A)
Gain of Transmit Antenna = 1.4 dB_i = 1.38, numeric (from UST Test Report 15.108.9A)
d = Distance = 20 cm = 0.2 m

S = (PG/ $4\pi d^2$) = EIRP/4A = 0.063(1.380)/4*π*0.2*0.2
= 0.08694/0.503 = 0.1730 W/m^2
= (W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.01730 mW/cm^2

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

Highest Gain Dipole Antenna= 2.6 dBi

Peak Power (Watts) = 0.063 (from UST Test Report 15.108.9A)
Gain of Transmit Antenna = 2.6 dB_i = 1.82, numeric (from UST Test Report 15.108.9A)
d = Distance = 20 cm = 0.2 m

S = (PG/ $4\pi d^2$) = EIRP/4A = 0.063(1.820)/4*π*0.2*0.2
= 0.1147/0.503 = 0.2279 W/m^2
= (W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.02279 mW/cm^2

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

5 GHz WIFI:

Highest Gain Chip Antenna= 2.3 dBi

Peak Power (Watts) = 0.067 (from UST Test Report 15-0108.9B)
Gain of Transmit Antenna = 2.3 dB_i = 1.70, numeric (from UST Test Report 15.0108.9B)
d = Distance = 20 cm = 0.2 m

S = $(PG/ 4\pi d^2)$ = EIRP/4A = 0.067(1.70)/4*π*0.2*0.2
= 0.1139/0.503 = 0.2264 W/m^2
= (W/m^2) $(1m^2/W)$ $(0.1\ mW/cm^2)$
= 0.02264 mW/cm^2

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

Highest Gain Dipole Antenna= 3.3 dBi

Peak Power (Watts) = 0.067 (from UST Test Report 15-0108.9B)
Gain of Transmit Antenna = 3.3 dB_i = 2.14, numeric (from UST Test Report 15-0108.9B)
d = Distance = 20 cm = 0.2 m

S = $(PG/ 4\pi d^2)$ = EIRP/4A = 0.067(2.14)/4*π*0.2*0.2
= 0.1434/0.503 = 0.2850 W/m^2
= (W/m^2) $(1m^2/W)$ $(0.1\ mW/cm^2)$
= 0.02850 mW/cm^2

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

All calculations performed by:

George Yang
Date: 11/23/2015
Signature:_____

Note validation of output power levels and antenna gain information please see the referenced test reports for this submittal.