R.F Exposure/Safety Calculation
Outdoor Pico Base Station 2.5 GHz

Calculation of Maximum Permissible Exposure (MPE)
Based on Section 1.1307(b)(1) Requirements

(a) FCC limits at 2600 MHz is: $1\frac{mW}{cm^2}$

Using table 1 of Section 1.1310 limit for general population/uncontrolled exposures, the above level is an average over 30 minutes.

(b) The power density produced by the E.U.T. is

$$S = \frac{P_t G_t}{4\pi R^2} \qquad R = \sqrt{\frac{P_t G_t}{4\pi}}$$

P_t- Transmitted Power 35.2dBm = 3311.3mW

G_T- Antenna Gain 15dBi = 31.6

R- Distance from Transmitter

S- MPE=1

(c) The calculated minimum distance between the EUT antenna and the general public is :

$$R = \sqrt{\frac{3311.3 \times 31.6}{4\pi}} = 91.3cm$$

(d) According to the customer the minimum distance between the EUT antenna and the general public is 1 meter.