MPE Calculation for PP-1316

The Maximum Permissible Exposure (MPE) power density per ANSI C95.1 Table 2 is f/1500 mW/cm^2, where f is measured in MHz.

The maximum EIRP of the PP1316 is extrapolated from the highest conducted measurement of 23.24dBm along with the peak gain of 0dBi of the antenna to yield a maximum numerical EIRP of 0.211W x 1.0 = 0.211W.

As described in Section 4.2 of the PP1316 Test Report, there is a duty cycle correction factor of 4.84% which will be multiplied to the maximum numerical EIRP, thus yielding a EIRP = 10.2mW.

$S = EIRP / 4\pi R^2$
$915 / 1500 = 10.2 / 4\pi R^2$
R = 1.15cm.

The PP1316 can only be operated inside a utility 3-phase meter. These meters are either installed on a meter box outside a building, or inside a sealed cabinet that is inaccessible to the general public. The distance between the antenna and the outer meter cover alone is around 1cm. Hence, typical exposure is expected to be at distances much further than 1 meter.