MPE Calculation for NC-900

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 NC-900 is extrapolated from the highest conducted measurement of 25.8dBm along with the peak gain of +10dBi of the antenna to yield a maximum numerical EIRP of 35.8dBm, or 3.8W.

As described in Section 2.7.1 of the NC-900 operating description, there is a duty cycle correction factor of 35.08% which will be multiplied to the maximum numerical EIRP, thus yielding a EIRP = 1.334W.

$S = EIRP / 4\pi R^2$
$915 / 1500 = (1334) / 4\pi R^2$
$R = 13.19cm.$

The flat panel antenna of the NC-900 is intended to mount on top of a 50ft or higher pole atop a building.   Hence it is almost impossible that a person would be within the stated distance.

The NC-900 also meets the exception of RSS102 Iss.2 2.5.2 as the separation distance between the user and the device exceeds 20cm and that its source-based time-averaged output power is less than 2.5W. As such, only Annex C of the IC Appendix I-II form needs to be signed and submitted.

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