

EQUIPMENT: AR200
FCC Identifier: O33AR200

RF exposure and RF safety

The transmitter operating under normal standard conditions has a maximum duty cycle of 50%, 1.875 seconds on 1.875 seconds off. Nevertheless for the calculation, full power 100% duty cycle is taken.

The maximum output power: 1.92W @899MHz ref pag 6-45 CTMS test report. Since all harmonic are more than 50dB down the fundamental, only the fundamental is taken for calculations, 899MHz.

Results were calculated in mW/cm² using free space theory $Pr = W_t * G_t / 4 * \pi * R^2$ where Pr is the power density in mW/cm², Gt gain of the transmit antenna 0dB and R the distance in cm to the radiating structure.

Distance (cm)	Power density (mW/cm ²)	MPE - 1 (mW/cm ²)	MPE - 2 (mW/cm ²)
20	0.382	3	0.6
40	0.095	3	0.6
60	0.042	3	0.6
80	0.024	3	0.6
100	0.015	3	0.6

MPE-1: Limit for Occupational/ Controlled Exposure

MPE-2: Limit for General Population/Uncontrolled Exposure

The antenna is a helical 0dB gain antenna operating from 860 to 960MHz. Antenna specifications are provided in the operational manual chapter 3, pag 12.

The manual as well as the label tells the customer that the minimum distance to the radiating structure is minimum 20cm.