

Notice in Installation Manual:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment when installed as directed. This equipment should be installed and operated with fix-mounted antennas that are installed with a minimum of 2 meters of separation distance between the antenna and all persons' body during normal operation.

RF Exposure Calculations:

The following information provides the **minimum** separation distance for the highest gain antenna provided with the **Model: CA2458 Converter with Agere Extended WLAN Card**, as calculated from **FCC OET 65 Appendix B, Table 1B** Guidelines for General Population/Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1.0 mW/cm² uncontrolled exposure limit. The Friss formula used was:

$$S = (P_o * G) / (4 * \pi * r^2) \quad \text{or} \quad r = \sqrt{(P_o * G) / (4 * \pi * S)}$$

Where $S = 1.0 \text{ mW/cm}^2$ for 5800 MHz

Where $P_o = 250 \text{ mW}$ (Peak RF)

Where $G = \text{Isotropic antenna gain (numeric)}$

Where $r = \text{Minimum Safe Distance from antenna (cm)}$

For: 27 dBi Dish Antenna - $r = 100 \text{ cm}$

The following table lists the antennas that will be provided with the system:

Authorized Antennas

Model	Antenna Type	Antenna Gain (dBi)	Max EIRP (dBm)	MPE Distance (CM)
A5.8FP23	One foot dish	24	48	71
A5.8FP27	Two foot dish	27	51	100
A5.8-1'	One foot flat panel	24	48	71
A5.8-2'	Two foot flat panel	27	51	100
A5.8HP90-16	Uni-directional antenna	16	40	28

Notes:

1. MPE distance figures are based on a conservative “worse case” prediction, i.e. +24 dBm into antenna and using formula $S=EIRP/(4\pi R^2)$ and no calculation for duty factor. In practice the minimum distance will be much shorter. (Ref. 2)

2. The minimum MPE distance has been calculated for the maximum allowed Power Density (S) limit of 1.0 mW/cm² in the Frequency range 1500-100,000 MHz for uncontrolled environments (Ref. 2).

Reference:

1. FCC Part 15, sub-clause 15.247 (b) (4)
2. FCC OET Bulletin 65, Edition 97-01
3. FCC Supplement C to OET Bulletin 65, edition 97-01