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Z H O N E

Engineering Analysis MPE for 4.9 GHz Public Safety Band Access Point

FCC ID: PJZSZ1424

Zhone Technologies, Inc.
MODEL: SKYZHONE-1424

Skyzhone products will be professionally installed to insure the minimum separation distance from all persons potentially exposed to the unit. This guideline is included in the install manual shipped with every product.

Per OET-65, the limit for the 4.9GHz radio falls in the range of frequencies between 1500 – 100,000 MHz. This requires a Power Density (S) of no more than 1.0 mW/cm².

Using the formula presented in OET-65,

$$S = (P * G) / (4\pi R^2)$$

The Skyzhone-1424 product uses two 5.3dBi antennae with a combined conducted worst-case power of 1400 mW. A 25 cm (9.84 inch) spacing is required per the product install guide.

$$P = 1400 \text{ mW}$$

$$G = 10^{0.53} = 3.39$$

$$R = 25 \text{ cm}$$

$$S = 0.604 \text{ W/cm}^2$$

This is below the 1.0 W/cm² limit.