

General Information:

FCCID: QJEIAPWR63000902

Device Category: Fixed mounted per 2.1093

Environment: General population/uncontrolled exposure

Antenna: Hypergain Model: HC24070 omnidirectional with 7.5 dBi gain

Operating configuration and exposure conditions:

Antenna will be mast mounted with a separation distance of at least 2 meters from the body during normal use.

MPE calculation:

W := .16 power in Watts D := .571 Duty Factor in decimal % (1=100%)

E := 30 exposure time in minutes U := 30 (use 6 for controlled and 30 for uncontrolled)

$$W_{exp} := W \cdot D \cdot \left(\frac{E}{U} \right)$$

$$PC := \frac{E}{U}$$

PC = 1 percent on time

W_{exp} = 0.091 Watts

Po := .091 mWatts dBd := 5.35 antenna gain f := 2440 Frequency in MHz

G := dBd + 2.15 gain in dBi G = 7.5

Gn := 10 ^{$\frac{G}{10}$} gain numeric S := 1 for frequencies above 1500 MHz

Gn = 5.623 S = 1

$$R := \sqrt{\frac{(Po \cdot Gn)}{(4 \cdot \pi \cdot S)}}$$

$$R_{inches} := \frac{R}{2.54}$$

R = 0.202 distance in centimeters
required for compliance

R_{inches} = 0.079

The 0.571 duty cycle is derived from a presentation in a separate exhibit.

Conclusion:

The device complies with the MPE requirements by providing a safe separation distance between the antenna, including any radiating structure, and any persons.