Tracker: RDWN35-U3

Maximum Permissible Exposure
FCC, Part 90 Subpart C §90.1217

Calculations for Maximum Permissible Exposure Levels

Power Density = Pd (mW/cm^2) = $EIRP/(4\pi d^2)$

EIRP = P * G

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = $10 \wedge (G (dBi)/10)$

The RADWIN 2000 JET and RADWIN 5000 JET has three antenna chains. The peak power in the table below is calculated by assuming a worst case scenario for the maximum gain antenna and output power.   The calculated separation distance is worst case found (Operational mode 40 MHz, channel 3675.00 MHz.   Calculation was performed using the 17 dBi antenna gain.

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm^2

						Distance (cm)	
Freq. Band (MHz)	Antenna Gain (dBi)	Numeric Gain (numeric)	Max Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density @ 20cm	Calculated Safe Distance @ 1mW/cm^2 Limit(cm)	Minimum Separation Distance (cm)
3,675.0	17	50.12	+28.58	721.1	7.19	53.6	53.6

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

Specification
Maximum Permissible Exposure Limits

§90.1217 Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency levels in excess of the Commission's guidelines.   See §1.1307 (b)(1) of this chapter.

Limit = 1 mW / cm^2 from 1.310 Table 1

Laboratory Measurement Uncertainty for Power Measurements

Measurement uncertainty	±1.33dB