

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	R/C Helicopter
Model Name	YD-218, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, YD-927, YD-938, YD-118, YD-118C, YD-615, YD-613, YD-115, YD-001, YD-003, YD-211, YD-211S, YD-216, P01, P02, P03, P04, P05, P06, P07, P08, P09, P10, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99
FCC ID	2AEVN0754218

2. EVALUATION METHOD

According to 447498 D01 General RF Exposure Guidance v05

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

3. CALCULATION

According to the follow transmitter output power (P_t) formula :

$$P_t = (E \times d)^2 / (30 \times g_t)$$

P_t = transmitter output power in watts

g_t = numeric gain of the transmitting antenna (unitless)

E = electric field strength in V/m

d = measurement distance in meters (m)

$$P_t = 0.147 \text{ mW}$$

The result for RF exposure evaluation

$$\text{SAR} = (0.147 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.415(\text{GHz})}] = 0.046 < 3.0 \text{ for 1-g SAR}$$

4. CONCLUSION

The SAR evaluation is not required.