

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	R/ C CAR
Model Name	R-401S, R-101, R-102, R-103, R-101S, R-102S, R-103S, R-201, R-202, R-203, R-201S, R-202S, R-203S, R-301, R-302, R-303, R-301S, R-302S, R-303S, R-401, R-402, R-403, R-404, R-402S, R-403S, R-404S, R-411, R-412, R-413, R-414, R-411S, R-412S, R-413S, R-414S, R-421, R-422, R-423, R-424, R-421S, R-422S, R-423S, R-424S, R-501, R-502, R-503, R-504, R-501S, R-502S, R-503S, R-504S, R-511, R-512, R-513, R-514, R-511S, R-512S, R-513S, R-514S, R-521, R-522, R-523, R-524, R-521S, R-522S, R-523S, R-524S, R-531, R-532, R-533, R-534, R-531S, R-532S, R-533S, R-534S, R-551, R-552, R-553, R-554, R-551S, R-552S, R-553S, R-554S, R-601, R-602, R-603, R-604, R-601S, R-602S, R-603S, R-604S, R-611, R-612, R-613, R-614, R-611S, R-612S, R-613S, R-614S, F-464, F-465
FCC ID	2AIOG20190912

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)

$$P_t = 0.038 \text{ mW}$$

The result for RF exposure evaluation

$$\text{SAR} = (0.038 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.475(\text{GHz})}] = 0.012 < 3.0 \text{ for 1-g SAR}$$

4. CONCLUSION

The SAR evaluation is not required.