

RF Exposure Statement

Product description

Test item	: Radio control transmitter
Applicant	: Kyosho Corporation of America.
Address	: 20322 Valencia Circle, Lake Forest, CA, USA 92630
Model	: EX-6
FCC ID	: WIZSYNCROEX6
Operating frequency range	: 2404 - 2480 MHz (DSSS), 2404 – 2460 MHz (FHSS)
TX output power (Cond)	: DSSS: -3.15dBm @2.404GHz, -3.57dBm @2.442GHz, -4.71dBm @2.480GHz : FHSS: -3.06dBm @2.404GHz, -3.20dBm @2.432GHz, -3.99dBm @2.460GHz
Maximum Antenna Gain	: +0.5dBi

Analysis for portable use

Standalone SAR test exclusion considerations are defined in the KDB 447498 Chapter 4.3.1. 1-g head or body SAR exclusion threshold is defined with formula.

$[(\text{Max. power of channel, mW}) / (\text{Min. test separation distance, mm})] * [\sqrt{f}(\text{GHz})] \leq 3.0$ for 1-g SAR

The maximum Conducted Peak Output Power is -3.06dBm (2.404GHz).

The best case gain of the antenna is +0.5dBi.

EIRP = (-3.06dBm) + (+0.5dBi) = -2.56dBm

-2.56dBm logarithmic terms covert to numeric result is nearby 0.555mW

$$\text{General RF Exposure} = (0.555\text{mW} / 5\text{mm}) * \sqrt{2.404\text{GHz}} = 0.172 \leq 3.0$$

Other frequency results are

[FHSS]

$$\text{General RF Exposure} = (0.537\text{mW} / 5\text{mm}) * \sqrt{2.432\text{GHz}} = 0.167 \leq 3.0$$

$$\text{General RF Exposure} = (0.448\text{mW} / 5\text{mm}) * \sqrt{2.460\text{GHz}} = 0.141 \leq 3.0$$

[DSSS]

$$\text{General RF Exposure} = (0.543\text{mW} / 5\text{mm}) * \sqrt{2.404\text{GHz}} = 0.168 \leq 3.0$$

$$\text{General RF Exposure} = (0.493\text{mW} / 5\text{mm}) * \sqrt{2.442\text{GHz}} = 0.154 \leq 3.0$$

$$\text{General RF Exposure} = (0.379\text{mW} / 5\text{mm}) * \sqrt{2.480\text{GHz}} = 0.119 \leq 3.0$$

Radio control transmitter EX-6 meets the SAR exclusion. So SAR evaluation is not needed.