Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz pure transmit controller (Controller Unit) for a RC car. The operation frequency range is between 2405MHz and 2475MHz with 76 channels. The channels are separated by 1 MHz channel spacing.

The EUT is powered by 1 x 9.0V alkaline batteries.

After switch on the EUT, the car will be moved forward or backward, turned left or right based on the switches pressed in the controller.

For FCC, the Models: 88093, 88103, 88113, 88123, 88133, 88183, 88243, 88283, 88293, 88303, 88313, 88333, 88343, 88413, 88423, 88433, 88513, 88074, 88094, 88104, 88114, 88124, 88134, 88184, 88244, 88284, 88294, 88304, 88314, 88334, 88344, 88414, 88424, 88434, 88514, 5F633F7 and 5F633F8 are the same as the Model: 88073 in hardware aspect. The difference in model number serves as marketing strategy. The models are different in non-conductive outer casing of corresponding receiver only.

Antenna Type: Internal, Integral

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Nominal rated field strength is 100.2 dBμV/m at 3m
Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 103.2dBμV/m at 3m in frequency 0.027145GHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 6.268mW

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;

Conducted Power =6.268mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.475) mW
= 9.535 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.