

Analysis Report

The Equipment Under Test (EUT) is portable controller for Remote controlled car set which operates at 49.860MHz. The EUT is power by 1 x 9.0V battery.

After switch on the EUT, model: 89021, the car will be moved forward or backward, turned left or right based on the joystick control in the controller.

The Model: 89051, 89071, 89091, 89101, 89111, 89121, 89131, 89181, 89221, 89231, 89241, 89281, 89291, 89301, 89311, 89321, 89331, 89341, 89351, 89391, 89401, 89411, 89421, 89431, 89511, 89441, 5F633F9, 89286, 89136, 89346 and 89246 are the same as the Model: 89021 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

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 61.9 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 64.9dB μ V/m at 3m in frequency 49.860MHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.001mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.001mW.

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$

= $3.0 * 5 / \text{sqrt}(0.04986)$ mW

= 67.18 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.