Analysis Report

The Equipment Under Test (EUT), is a portable 27.145MHz Transmitter (Controller Unit) for a RC car. The EUT is powered by 4 x 1.5V AA batteries.

After switch on the EUT, the car will be moved forward or backward, based on the button pressed on the controller, and the car will be turned left or right based on the direction of the driving wheel of the controller.

The Model: 88571, 88591, 88601, 88611, 88621, 88631, 88681, 88741, 88781, 88791, 88801, 88811, 88821, 88831, 88841, 88851, 88921, 88931, 85572, 88592, 88602, 88612, 88622, 88632, 88682, 88742, 88782, 88792, 88802, 88812, 88822, 88832, 88842, 88852, 88922, 88932, 85573, 88593, 88603, 88613, 88623, 88633, 88683, 88743, 88783, 88793, 88803, 88813, 88823, 88833, 88843, 88853, 88923, 88933, 85574, 88594, 88604, 88614, 88624, 88634, 88684, 88784, 88794, 88804, 88814, 88824, 88834, 88844, 88854, 88924, 88934, 5F633F7 and 5F633F8 are the same as the Model: 88744 in hardware aspect. The difference in model number serves as marketing strategy. The models are different in non-conductive outer casing only.

Antenna Type: Internal, Integral

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Nominal rated field strength is 63.7 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 66.7dBµV/m at 3m in frequency 0.027145GHz, 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 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (0.027145) mW
= 91.04 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.