

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Car Unit) for the RC car set. The operation frequency range is between 2407MHz and 2477MHz with the following 27 Channels used:

Channel	Frequency (GHz)
1	2.407
2	2.408
3	2.409
4	2.410
5	2.411
6	2.413
7	2.435
8	2.436
9	2.438
10	2.439
11	2.440
12	2.441
13	2.442
14	2.443
15	2.444
16	2.445
17	2.467
18	2.468
19	2.469
20	2.470
21	2.471
22	2.472
23	2.473
24	2.474
25	2.475
26	2.476
27	2.477

The EUT is powered by 5 x 1.5V AA batteries. After switch on the EUT, the car will be moved forward or backward and turned left and right based on the switches pressed in the controller.

The Model: 47365, 47367 and 74974 are the same as the Model: 79867 in hardware aspect. The difference in model number serves as marketing

strategy. The models are different in model number, item name, color, packaging and non-conductive accessories 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 98.0 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 101.0dB μ V/m at 3m in frequency 2.480GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.78\text{mW}$

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

Conducted Power = 3.78mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.477} \text{ mW}$

= 9.53 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.