

INTERTEK TESTING SERVICES

RF Exposure

The Equipment under Test (EUT) is a Car unit for R/C VEHICLE model: BY35066-24GR operating at 2.4GHz band. It is powered by 1 x DC 9.6V rechargeable battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal radiated output power (e.i.r.p) is: -17.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -17.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 78.4.0dB μ V/m at 3m in the frequency 2480MHz

The EIRP = [(FS*D) ^2 / 30] mW = -16.83dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 75.9dB μ V/m at 3m in the frequency 2440MHz

The EIRP = [(FS*D) ^2 / 30] mW = -19.33dBm
which is within the production variation.

The maximum radiated output power specified is -14dBm = 0.04mW

The source- based time-averaging output power
= 0.04* Duty cycle mW <0.1 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 * 5 / sqrt (2.480) mW

= 9.53 mW

Since the source-based time-averaging output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 15.0435ms

Effective period of the cycle = 2.5652ms

Duty Cycle = 2.5652/15.0435 = 0.1705 = 17.05%

FCC ID: BY35066-24GR