INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Drone 7inch Flying Car operating at 2.4G Band. The EUT can be powered by DC 6.0V (4 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Modulation Type: GFSK.
Antenna Gain: 0dBi.
The normal radiated output power (e.i.r.p) is: -4.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -4.0dBm (tolerance: +/- 3dB).

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 91.2 dBµV/m at 3m in the frequency 2475MHz
The EIRP = [(FS*D) ^2 / 30] mW = -4.03dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 89.5dBµV/m at 3m in the frequency 2430MHz
The EIRP = [(FS*D) ^2 / 30] mW = -5.73dBm
which is within the production variation.

The maximum conducted output power specified is -1.0dBm=0.794mW
The source- based time-averaging conducted output power
=0.794* Duty cycle mW <0.794 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.475) mW
= 9.53 mW

Since the source-based time-averaging conducted 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 = 20.2174ms
Effective period of the cycle = 1666.7µs = 1.6667ms
DC =1.6667ms / 20.2174ms =0.0824 or 8.24%

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