

INTERTEK TESTING SERVICES

RF Exposure

The Equipment under Test (EUT) is a Control unit for DRONE DX 2INCH NANO model: DGUN-2927 operating at 2.4GHz band. It is powered by DC 3.0V (2 x 1.5V AAA batteries). 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: 0dBm (tolerance: +/- 3dB).

The normal conducted output power is: 0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 96.4dB μ V/m at 3m in the frequency 2475MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.17dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 93.9dB μ V/m at 3m in the frequency 2450MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -1.33dBm
which is within the production variation.

The maximum conducted output power specified is 3dBm = 2.0mW

The source- based time-averaging conducted output power
= $2.0 \cdot \text{Duty Cycle}$ mW < 2.0mW (Duty Cycle < 100%)

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.475)$ mW

= 9.53mW

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 duration of one cycle = 3.0435ms

Effective period of the cycle = 1.2174ms

DC = 1.2174ms/3.0435ms = 0.4 or 40.0%

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