

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is an AV BANSHEE 2.0 AQUA operating at 2.4G Band. The EUT has two sets 2.4GHz transceiver: FT24160AV transceiver and FT92090 transceiver. The EUT can be powered by DC 4.5V (3 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 1.13dBi.

Modulation Type: GFSK.

For FT24160AV transceiver

The normal radiated output power (e.i.r.p) is: -7.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -8.13dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 89.3dB μ V/m at 3m in the frequency 2474MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -5.93dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 86.5dB μ V/m at 3m in the frequency 2412MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -8.73dBm
which is within the production variation.

The maximum conducted output power specified is -5.13dBm = 0.307mW

The source- based time-averaging conducted output power
=0.307mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.474)$ mW

= 9.54 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.

For FT92090 transceiver

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

The normal conducted output power is -18.13dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 78.0dBμV/m at 3m in the frequency 2401.500MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -17.23dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 77.3dBμV/m at 3m in the frequency 2441.5MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -17.93dBm

which is within the production variation.

The maximum conducted output power specified is -15.13dBm= 0.031mW

The source- based time-averaging conducted output power
=0.031mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.4775}$ 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.

Simultaneous Transmission

For FT24160AV transceiver and FT92090 transceiver:

The maximum conducted output average power specified is 0.338 mW,

The source- based time-averaging conducted output power is 0.338mW < 9.53mW. EUT is considered to comply with SAR requirement without testing.

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