Analysis Report

The Equipment Under Test is a Gaming Headset of 2.4GHz Wireless Headphone with Dongle and Docking (Cradle). The EUT operates at frequency range of 2403.35MHz to 2479.35MHz. There are total 39 channels with 2MHz channel spacing. The USB port on the Headphone is for charging purpose only. The EUT is powered by 3.7V rechargeable battery. The EUT has two antenna.

The device was powered by 3.7VDC (1 x 3.7V Rechargeable Battery).

Antenna 0

Antenna Type: Internal, Integral antenna
Antenna Gain: 0dBi
Nominal rated field strength is 86.74dBµV/m at 3m (Peak), 83.72dBµV/m at 3m (Average)
Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the maximum average field strength of production tolerance was 86.7dBµV/m at 3m in frequency 2.43935GHz.

Thus, it below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.483.5) mW
= 9.52 mW

According to the KDB 412172 D01:
EIRP = [(FS*D) ^2*1000 / 30]

Calculated Field Strength for 9.52mW is 105dBuV/m @3m

Since maximum average field strength plus production tolerance < = 105dBuV/m @3m and antenna gain is > = 0.0dBi, it is concluded that maximum Conducted Power and Field Strength are well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.

Antenna 1

Antenna Type: Internal, Integral antenna
Antenna Gain: 0dBi
Nominal rated field strength is 93.90dBμV/m at 3m (Peak), 93.74dBμV/m at 3m (Average)
Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the maximum average field strength of production tolerance was 96.7dBμV/m at 3m in frequency 2.40335GHz.

Thus, it below calculated field strength according to minimum SAR exclusion threshold level as follows:

The worst case of SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.483.5) mW
= 9.52 mW

According to the KDB 412172 D01:
EIRP = [(FS*D) ^2*1000 / 30]

Calculated Field Strength for 9.52mW is 105dBuV/m @3m

Since maximum average field strength plus production tolerance < = 105dBuV/m @3m and antenna gain is > = 0.0dBi, it is concluded that maximum Conducted Power and Field Strength are well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.