

Analysis Report

The Equipment Under Test (EUT) is a showcase helmet with Bluetooth 2.0 function. The Bluetooth 2.0 module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The EUT can be connected with a Bluetooth Device for music playing. The EUT is powered by 3 x AA batteries.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Maximum allowed field strength range is from 97.8 to 99.8 dB μ V/m at 3m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 99.8dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D) ^2 * 1000 / 30] = 2.88mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 2.88mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.480)$ mW

= 9.52 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.