INTERTEK TESTING SERVICES

RF Exposure

The Equipment under Test (EUT) is a Bluetooth headset model Lenovo W520. It is powered by DC 3.7V. For more detail information please refer to the user manual.

Antenna Type: Integral antenna. Antenna Gain: 0dBi. The nominal conducted output power specified: 1dBm ±3dB. Test radiated output power: -2dBm ~ 4dBm

Modulation Type: GFSK, $\pi/4$ –DQPSK and 8-DPSK.

According to the KDB 447498:

The maximun conducted output power specified is 4dBm = 2.51mW The source- based time-averaging conducted output power = 2.51* Duty Cycle mW= 2.09mW

The SAR Exclusion Threshold Level: = 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz) = 3.0 * 5 / sqrt (2.480) 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.

Transmitter Duty Cycle Calculation

Based on the Bluetooth Specification (BT version: 3.0 + EDR), the duty cycle is dependent of packet type (DH1, DH3 and DH5).For one period for a pseudo-random hopping through all 79 RF channels, for DH5: One hop set consists of 5 TX slot and 1 RX slot. Duty cycle = 5 / 6 = 0.833