RF Exposure Evaluation

Product Description: Bluetooth headset

Model Number: SH-01

FCC ID: 2AFIISH-01

According to 447498 D0**1** General RF Exposure Guidance v05 The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by: [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The transmitter output power (P_t) formula was showed as the follow:

$P_t = (E \times d)^2 / (30 \times g_t)$

P_t=transmitter output power in watts

g_t=numeric gain of the transmitting antenna (unitess)

E=electric field strength in V/m

d=measurement distance in meters (m)

According to the formula described above:

Emax=**<u>97.28</u>**dBuv/m=**<u>0.073</u>**V/m, d=3m, g_t=1

$P_t = (E \times d)^2 / (30 \times g_t) = (\mathbf{0.073} \times 3)^2 / (30 \times 1) = \mathbf{0.0015987}$W=**1.60**mW

The result is rounded to one decimal place for comparison

Worse case is as below: [2402MHz -**1.60**mW output power]

(**1.60**mW / 5mm)*[√2.402(GHz)] = **<u>0.496</u>**mW < 3.0 for 1 - g SAR

Then SAR evaluation is not required

NOTE: For the maximum power, you can refer FCC test report.