RF Exposure evaluation

Product Description:Bluetooh Wireless Keyboard
Model Number: K661C
FCC ID: 2ACGLK661C

According to 447498 D01 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

According to the follow transmitter output power (P_t) formula :

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

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 above test data,Emax=91.28 dBuv/m=0.037V/m,d=3m,g_t=1

$P_t = (E \times d)^2 / (30 \times g_t) = (0.037 \times 3)^2/(30 \times 1) = 0.00041W = 0.41mW$

The result is rounded to one decimal place for comparison

Worse case is as below: [2480MHz -0.5mW output power]

(0.41mW /50mm) .[√2.480(GHz)]= 0.013<3.0 for 1-g SAR

Then SAR evaluation is not required

NOTE: The transmitter output power formula you can refer to Part15F (K). For the maximum power, you can refer FCC test report.