MPE Evaluation

Applicant: Dongguan Chenxing Design Technology Co., Ltd.
FCC ID: 2BCYG-HW210HW310
Model: HW310, HW210

MPE Evaluation

RF Exposure Compliance Requirement

Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06 and FCC 1.1310 Radiofrequency radiation exposure limits for General Population/Uncontrolled Exposure

EUT RF Exposure

$Pd=PG/4\pi R^2$

Pd = power density in mW/cm2

P = output power to antenna in mW

G = gain of antenna in linear scale

π =3.14

R = distance between observation point and center of the radiator in cm

Bluetooth (BLE mode):

The Max Output Power is 3.418 dBm in 2.402GHz;

Antenna gain: -0.68 dBi, gain of antenna in linear scale: 0.86

R=20cm

$Pd =PG/(4\pi R^2)=0.00038$ mW/cm2<1(limits)mW/cm^2

Bluetooth (Classic mode):

The Max Output Power is 4.409 dBm Normal mode 2.402GHz;

Antenna gain: -0.68dBi, gain of antenna in linear scale: 0.86

R=20cm
gain of antenna in linear scale: 0.86

R=20cm

$Pd =PG/(4\pi R^2)=0.00047$ mW/cm2<1(limits)mW/cm^2

CONCLUSION: Both of the BLE and BDR/EDR, can transmit simultaneously, the formula of calculated the MPE is:
CPD1 / LPD1 + CPD2 / LPD2+ CPD3 / LPD3 < 1
CPD = Calculation power density
LPD = Limit of power density

--END--