

## MPE Evaluation

**Applicant:** Zhuhai Shubo Tianxia Intelligent Technology Co., Ltd.

**FCC ID:** 2BNTV-MX100

**Model:** 1905, 1906

## MPE Evaluation

### RF Exposure Compliance Requirement

#### Standard Requirement

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

#### EUT RF Exposure

$$P_d = \frac{P G}{4 \pi R^2}$$

$P_d$  = power density in mW/cm<sup>2</sup>

$P$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$$\pi = 3.14$$

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

Bluetooth:

The Max Output Power is -3.591 dBm in 2.402GHz;

Antenna gain: 3.38 dBi, gain of antenna in linear scale: 2.18

$R=20\text{cm}$

$$P_d = \frac{P G}{(4 \pi R^2)} = 0.000247 \text{ mW/cm}^2 < 1(\text{limits}) \text{mW/cm}^2$$

WIFI:

The Max Output Power is 16.17 dBm in 802.n20 2.480GHz;

Antenna gain: 5.0 dBi, gain of antenna in linear scale: 3.16

$R=20\text{cm}$

$$P_d = \frac{P G}{(4 \pi R^2)} = 0.02604 \text{ mW/cm}^2 < 1(\text{limits}) \text{mW/cm}^2$$

SUM:

The Max Output Power is 16.88 dBm in 802.n20 2.480GHz;

Antenna gain: 5.0 dBi, gain of antenna in linear scale: 3.16

$R=20\text{cm}$

$$P_d = \frac{P G}{(4 \pi R^2)} = 0.03066 \text{ mW/cm}^2 < 1(\text{limits}) \text{mW/cm}^2$$

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