

# FCC ID : XGB-STEALTHULTRA

## ➤ Test Standards and Limits

### 1. According to KDB 447498 D01 v06, Section 4.3.1

### 2. FCC Radiofrequency radiation exposure limits:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot \sqrt{f(\text{GHz})} \leq 3.0$  for 1-g SAR and  $\leq 7.5$  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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

We use 5mm as separation distance to calculate.

## ➤ Measurement and Calculation

### 1. Maximum transmit power

BLE and 2.4 SRD cannot transmit at the same time

BLE antenna gain: 2.12 dBi

Transmit Frequency (GHz)	Mode	Max Conducted Power (dBm)	tune up maximum power(dBm)	Result calculation	1-g SAR
2.402(1M)	GFSK	-0.87	0	0.310	3
2.440(1M)	GFSK	-2.52	0	0.312	3
2.480(1M)	GFSK	-3.39	0	0.315	3
2.402(2M)	GFSK	-1.10	0	0.310	3
2.440(2M)	GFSK	-2.67	0	0.312	3
2.480(2M)	GFSK	-3.56	0	0.315	3

2.4G SRD, Antenna Gain: 0 dBi

Operation Mode	Channel Number	Channel Frequency (MHz)	EIRP (dBm)	Result calculation	1-g SAR
2.4G SRD	00	2402	0.58	0.354	3
	19	2440	-1.64	0.214	3
	39	2480	-2.77	0.166	3

\*  $EIRP[\text{dBm}] = E[\text{dB}\mu\text{V}/\text{m}] + 20 \log(d[\text{meters}]) - 104.77$

## 2. MPE Calculation

For the max result :  $0.354 \leq 3.0$  for 1-g SAR extremity SAR, No SAR is required.

-End of the Report-