

FCC ID: 2BFZA-DCU040**Portable device**

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V06

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is $<$ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

MPE Calculation Method**(ii) Limits for General Population/Uncontrolled Exposure**

0.3–1.34	614	1.63	*(100)	<30
1.34–30	824/f	2.19/f	*(180/f ²)	<30
30–300	27.5	0.073	0.2	<30
300–1,500			f/1500	<30
1,500– 100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

$$E (\text{V/m}) = \frac{\sqrt{30 * P * G}}{d}$$

$$\text{Power Density: } Pd (\text{W/m}^2) = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Average RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 * P * G}{377 * D^2}$$

From the EUT RF output power, the minimum mobile separation distance, d=0.005m, as well as the gain of the used antenna, the RF power density can be obtained.

UWB

Antenna Type: On Board PCB Patch Antenna 6.5GHz: 4.5dbi, 8GHz: 3.8dbi

Modulation	Channel Freq. (GHz)	Conducted power (dBm)	Conducted power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune-up power (mW)	Limit(mW)
UWB	6500	-34.67	0.00034	-35±1	-34	0.00040	1.00
	8000	-35.78	0.00026	-35±1	-34	0.00040	1.00

Conclusion:

For the max result : $0.00040 \leq 1$, No SAR is required.

Signature:



Date: 2024-06-03

NAME AND TITLE (Please print or type): Alex /Manager

COMPANY (Please print or type): Shenzhen NTEK Testing Technology Co., Ltd./ 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen 518126 P.R. China