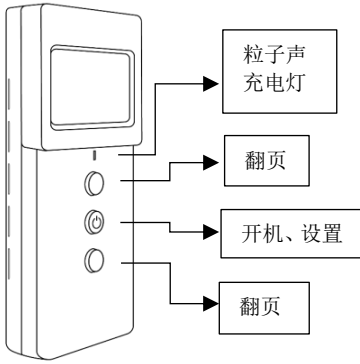


# 2024 版第 4 代 KB6011 核辐射检测仪 说明书

Personal Dose Radiometer REVISED IN 2024



## 功能概述:

- 清晰粒子声
- CPS/CPM 及最大值统计功能
- 报警阈值统计和辐射时间统计
- Turbo Q3.5 加速技术
- 金属皮能量补偿
- 支持 TypeC /持续更新固件
- 加入 PIN 二极管高量程补偿
- 高级参数可调

## 检测方法:

**一般测试:** 将仪器背面靠近被测物, 每间隔 15 秒刷新一次数据 (1 个周期), 需等待 1 分钟, 数值接近稳定后可读数。测试大理石时由于辐射较低, 建议放置 5 分钟, 查看 Average 平均值。

**测试碘 131:** 将仪器靠近患者的病灶, 等待 1 分钟以上, 查看实时值。

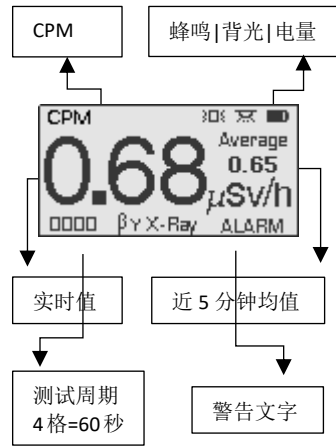
**测试空间值:** 仪器放置距离地面 1 米处, 避免地面的贝塔射线干扰, 在空旷地方测试 5 分钟。观察 Average 平均值。

**查找放射源:** 将仪器调至图形界面, 观察柱状图的情况, 将机器背面贴近扫描被测物。观察图形情况和报警音。

**DR, X 光泄露:** 开启射线后, 观察实时值即可。

**辐射值参考表: 0.5uSv/h 报警**

均值	场景	策略
0.18	自然环境	/
0.25	正常屋内	/
0.32	大理石	/
0.50	国标限制	警惕⚠
2-3	飞机上	可少乘
7.0	老式镜头	少触摸
40+	小块铀矿	勿接触
60+	安检机内	铅帘
100	能量石	远离
100+	服碘 131	遵医嘱
999+	CT 扫描	遵医嘱



- ◇ ReadTime 实时值
- ◇ Average 近 5 分钟移动均值
- ◇ Dose 总积累值
- ◇ Contact 被辐射次数
- ◇ Exp. Time 被辐射时间

RealTime	0.16 uSv/h
Average	0.15 uSv/h
Dose	1.5 uSv
Contact	2
Exp. Time	1:25:21

被辐射次数和时间的计算, 必须达到报警阈值才会累加。

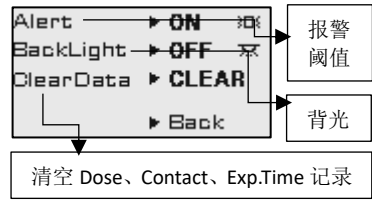
## 微信扫码更多细节

### 功能说明:

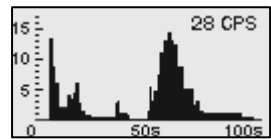
关机状态下, LED 闪烁, 表示充电中。  
关机状态, LED 常亮, 表示满电。

Contact、Exp. Time 功能是空霸

®KB6011 系列的独家功能。可以统计遭受辐射的次数和时长。比如做 CT 扫描, 共被持续辐射两次, 每次持续 6 秒。共计 12 秒。这些都将被记录。这有利于医生评估辐射危害。



所有积累量的数据, 比如 Dose 值, Contact 值、Exp. Time 值都可以通过 ClearData 手动清零。



全新的图形功能, 可以每秒连续以 CPS 方式显示辐射密度, CPS (每秒盖革粒子次数)

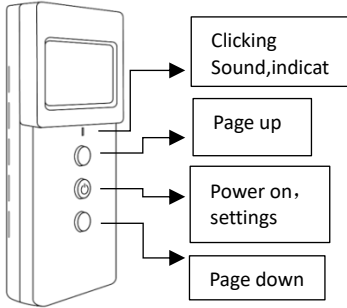
型号	KB6011
射线	γ, X-rays, 硬 β
探测器	能量补偿 GM 管
量程	5.0mSv/h
能量	48keV ~ 1.5MeV (±30%)
误差	< ±15%
灵敏度	80CPM/uSv/h (Co-60)
分辨率	0.01 uSv/h
检出限	0.05 uSv/h
速度	< 1s (暴露 20uSv/h)
尺寸	117×49×19.5mm

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Personal Dose Radiometer REVISED IN 2024



Scan the QR code for more.



## Feature Overview:

- The clicking noise of a Geiger counter(continuously clicking)
- CPS/CPM and maximum value statistical function
- Alarm threshold statistics
- Turbo Q3.5
- Special alloy energy compensation skin
- TypeC firmware updates
- Advanced parameters adjustable

## Detecting Methods:

**General testing methods:** Place device against to the testing object, waiting 60 seconds (after 4 cycles), the reading values should be stay stable. For marble radiation testing, the suggested testing time is 5 minutes, then check the average values.

**Iodine 131 test:** Place the device near patient's lesion. Wait about 1minutes and check the real-time value.

**Surrounding radiation test:** Place the device 1 meter above the ground, avoiding beta-ray interference on the ground and testing in open areas for 5 minutes. Observe the average readings on the display.

**Find radiation source:**Change the display to the histogram interface, and scan the object near the back of the machine. Observe the graphical situation and the alarm tone.

**DR, X-Ray leaking:** Observing the device instant readings while make contact with radiation rays.

## Radiation value reference table: alarming limitation 0.5uSv/h

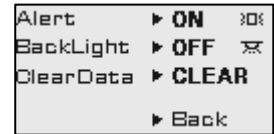
Value	Scenes	Respon ses
0.18	Surroundings	
0.25	Indoor environment	
0.32	Marble	
0.50	International standard	alarm🚨
2-3	Fling aircraft	Take it occasionally
7.0	Vintage Lens	Do not make frequent contact
40+	small uranium piece	Do not make contact
60+	Security inspection machine	Lead shield
100	Energy stone	Keep distance
100+	Taking Iodine 131	Follow the doctor's instructions
999+	CT scanning	

the detecting value meets the alarm threshold.

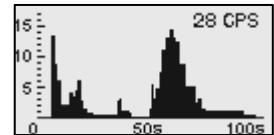
## Function explanation:

When charging while the device is off, the battery light will flash to indicate the battery level.

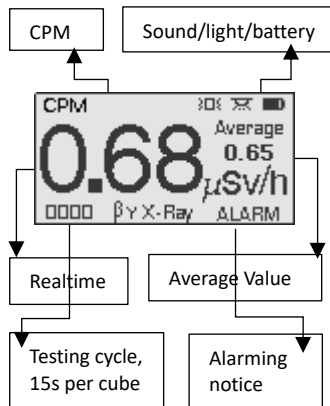
"radiation contact count statistics function" and "radiation exposure time ". These two functions are exclusive for KB 6011 module,It can offer sufficient reference values in medical inspection and protection. For instance, the patient is taking CT scanning, the exposure time and duration will be record on this machine to help doctor evaluate the radiation damage to human body.



All of the accumulated value on this device, such as Dose, contact and Exp.Time can be cleared and reset to 0 manually after selecting the ClearData function.



The brand new diagram function ,in this display,which can continuously show the radiation density in CPS.(CPS means Geiger particles per second)



The calculation of contact times and duration of irradiation will be added while

Range :0~ 5.0mSv/h
Energy range: 48keV ~ 1.5MeV (±30%)
Inherent error range :<±15%
Detecting Sensibility : 80CPM/uSv/h (Co-60)
Responding speed : < 1s (20uSv/h radiation exposure)