

PACKAGE RADIATION MONITORING SYSTEM

包裹辐射监测系统

Model # PIM-23B

FEATURES: 特点

- AUTOMATIC DETECTOR SYSTEM FOR PACKAGE CONVEYOR
- 自动检测系统，用于包裹传送带
- RADIATION TRIGGER POINT IS CONTINUOUSLY ADJUSTABLE
- 辐射触发点可连续调节
- MANUAL OVERRIDE
- 手动控制
- FIVE ENERGY (REGIONS OF INTEREST) WINDOWS
- 5个能量窗（感兴趣区）



SYSTEM DESCRIPTION: The **PIM-23B** monitors packages while they are traveling on a conveyor belt.

系统描述：PIM-23B监测传送带的包裹

Model **PIM-23B** Package Radiation Monitor is a sturdy, dependable, long life mechanical system with advanced electronics.

此系统耐用，可靠，寿命长，配备先进电子学

The detector is a 3" x 3" NaI Scintillator (**Optional:** 5" or 7" diameter) has its own electronics to give the greatest sensitivity.

探头为3" x 3"NaI闪烁体（选购：直径5"或7"）

Numerical measurement results are saved to the 60 Gig hard drive and are easily accessible for all packages: clean and radioactive.



TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

tagold@nwc.net

WWW.TECH-ASSOCIATES.COM

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数字测量结果存储在60G硬盘中，很容易提取到所有包裹-干净与放射性-数据

Color LCD computer monitor shows measurement values from all 5 Energy Isotopes. Indicating lights show status as ``CLEAN" or ``RADIOACTIVE". The date, time and results of all data that day, that week and that year are available for display, print-out and safe storage.

彩色LCD电脑显示器显示5个能量同位素测量值。指示灯显示状态为“干净”或“放射性”。当天，当周，当年的日期，时间和所有数据结果都可以显示，打印，安全存储。

Accessories: One set of calibration sources is supplied with **PIM-23B** Package Monitor. This consists of one each Ba-133, Cs-137, Co-60 calibration source standards. Each Source comes with NIST Traceable calibration certificate, test data, and Calibration Factors.

配件：PIM-23B包裹监测器自带一套标定源，包括标准标定源Ba-133, Cs-137, Co-60各一个。每个源带NIST可溯源标定证书，测试数据和标定因数

SPECIFICATIONS:

规格

- **Conveyors:** Packages pass beside the detector, display shows status as ``CLEAN" or ``RADIOACTIVE/CONTAMINATED".
- **传送带:** 包裹传输经过探测器，显示器显示状态：“干净” “放射性/污染”
- **Detector:**
- 探头
 - Spectroscopic Grade 3" x 3" NaI Scintillation Detector.
 - 光谱级3" x 3"NaI闪烁探头
 - **(Optional: 5" or 7" diameter)**
 - (可选购：直径为5" 或7"探头)
- **Ultimate Sensitivity:** 7 μ R/hr above background in 1 second.
- 极限灵敏度：1秒内本底以上7 μ R/hr
- **Background:** Automatically subtracted.
- **本底:** 自动扣除
- **Shielding:** 2 cm lead over greater than 2 Pi. Lead shield is modular and easy to assemble (no piece over 65lbs.)
- **屏蔽:** 大于2 Pi 2cm铅屏，铅屏为模块式容易组装（均小于65lbs.）
- **Electronics:** The Scintillation Detector has its' own PM tube. PMT base (dynode string circuit) Independent Modular high voltage and pre-amp discriminator. This provides improved sensitivity and easier maintenance if a PM tube is replaced.
- **电子学:** 闪烁探测器带自己PM管和底座,独立模块式高压前置放大器鉴别器,灵敏度因此提高，如果需要，PM管容易更换
- **Alarms:** Alarm threshold is continuously adjustable for each energy channel/ROI. High level alarm is user settable. Alarms are audio and visual plus screen display.
- **报警:** 每个能量通道报警点可连续调整，高限报警可用户设定。声音视觉加屏幕显示报警.
- **Operation:** Selectable: Continuous Mode, Calibration Mode
- **操作:** 可选：连续模式，标定模式



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- **Computer System:** Pentium IV 1 Giga Hz. High Resolution Graphics Display 1024 x 768, 256 colors. Color LCD screen monitor on a movable arm for improved ergonomics.
- **计算机系统:** P4处理器, 1千兆赫兹, 高分辨率图形显示器1024 x 768, 256色, 彩色LCD屏监视器安装在可移动臂上以方便使用。
- **Record Keeping:** All data automatically stored on 60 Gig hard drive. Data can be transmitted to other PC's by built in Ethernet connection (**Optional:** Telephone Modem). Graphics printer included. User can print tabular or graphical records of current day, week, month or year.
- **记录保存:** 所有数据自动存储在60G硬盘上。数据可通过局域网传送到其它PC机上。带图形打印机, 用户可打印当天, 当周, 当月和当年的表格或图形记录
- **System Weight:** 25 Kg plus Shielding.
- **系统重量:** 25千克, 加铅屏
- **Environmental Conditions:** 45°F to 100°F, (8° to 38°C) 10% to 95% relative humidity, non-condensing
- **环境条件:** 45°F - 100°F, (8° - 38°C) 相对湿度10% - 95%, 无冷凝
- **Power Supply:** 100 - 120 V AC or 220 V 50/60 Hz with UPS
- **电源:** 100 - 120 V AC 或 220 V 50/60 Hz 带 UPS备用电源
- **Battery Backup:** Uninterruptable "UPS" battery backup is supplied.
- **备用电源:** 不间断UPS备用电源
- **Energy Window:** Continuously adjustable for each energy window.
- **能量窗:** 每个窗可连续调整
- **Data Analysis:** First individual channels and then combined channels. Noise rejection Background subtraction Energy Analysis Calibration and units conversion Statistical significance check. Alarm point trip level
- **数据分析:** 首先单个通道, 然后综合通道。本底噪音扣除, 能量分析校准, 单位转换, 统计显著性检测, 报警点触发值。
- **Open Source:** All Technical Associates generated software is provided with source code to users.
- **开放源:** 所有TA软件向用户提供源代码。
- **Software Environment:** Technical Associates utilizes "Labtech notebook" software which allows user to make changes in system operation without being a programmer.
- **软件环境:** TA公司使用"Labtech notebook"软件, 允许用户操作中容易进行改变。
- **Electronic Functions:**
 - 电子学功能
 - Photo multiplier tube and base, Detector HV bias.
 - 光电倍增管和底座, 探头高压偏置
 - Amplifier with 5 adjustable Energy Windows (Regions of Interest).
 - 带5个能量窗放大器 (感兴趣区)
 - Data sent to and acquired by PC.
 - 通过PC发送及获取数据
 - Data analysis.
 - 数据分析
 - Alarm trigger.



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- 报警触发
Data storage.
- 数据存储
Data printout.
- 数据打印
Optional: Data Transmission (Ethernet).
System power UPS battery back-up.
- 选购：数据传输（以太网），系统备用电源UPS

Options:

- 选购
Outlet Annunciator Panel.
- 输出信号控制板
Spare detector plus other spare parts.
- 附加探头，加其它配件
Inlet Annunciator Panel.
- 输入信号器控制板
Calibration Jig. (positioning device)
- 标定固定器
Wider Temperature Range.
- 较宽温度范围
5" or 7" diameter NaI Scintillation Detector.
- 直径5" 或7"NaI 闪烁探头
Additional Regions of Interest Energy Channels.
附加兴趣区能量通道



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